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OM nucleic - nucleic search, using sw model

Run on: January 14, 2005, 08:54:47 ; Search time 242.002 Seconds  
(without alignments)  
8273.863 Million cell updates/sec

Title: US-09-963-521-1  
Perfect score: 2817  
Sequence: 1 aatgaataataccctccacc.....tgatctgttcgtagctgc 2817

Scoring table: IDENTITY\_NUC  
Gapop 10.0 , Gapext 1.0

Searched: 824507 seqs, 35539441 residues

Total number of hits satisfying chosen parameters: 1649014

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : Issued Patents NA: \*  
1: /cgm2\_6/ptodata/1/ina/5A COMB.seq: \*  
2: /cgm2\_6/ptodata/1/ina/5B COMB.seq: \*  
3: /cgm2\_6/ptodata/1/ina/6A COMB.seq: \*  
4: /cgm2\_6/ptodata/1/ina/6B COMB.seq: \*  
5: /cgm2\_6/ptodata/1/ina/PTCUS COMB.seq: \*  
6: /cgm2\_6/ptodata/1/ina/backfiles1.seq: \*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	2817	100.0	2817	4	US-09-431-099-1
2	1836.6	65.2	1909	4	US-09-431-099-3
3	1561.2	55.4	1590	4	US-09-602-787A-557
4	157.8	5.6	4403765	3	US-09-103-840A-2
5	157.8	5.6	4411529	3	US-09-103-840A-1
6	149.4	5.3	36138	4	US-08-311-731A-136
7	72.2	2.6	536165	4	US-09-214-808-1
8	71.6	2.5	1446	2	US-08-569-150A-2
9	71.6	2.5	2868	3	US-08-274-121B-1
10	70.2	2.5	1479	4	US-09-489-039A-7037
11	56	2.0	1455	4	US-09-328-352-595
12	54.8	1.9	2241	4	US-09-248-796A-3169
13	52.6	1.9	3165	4	US-09-614-221A-160
14	48	1.7	654	4	US-09-651-169A-36
15	47.6	1.7	7218	1	US-08-232-463-14
16	45.8	1.6	1230025	4	US-09-198-452A-1
17	45.6	1.6	381	4	US-08-956-171E-4023
18	45.6	1.6	381	4	US-08-781-986A-4023
c 19	44.8	1.6	400	4	US-08-956-171E-4234
c 20	44.8	1.6	400	4	US-08-781-986A-4234
21	44.8	1.6	3000	1	US-07-841-997A-3
22	44.8	1.6	3000	1	US-08-290-301-3
23	44.8	1.6	3000	3	US-09-013-598-3
24	44.8	1.6	5981	3	US-08-290-301-83
25	44.8	1.6	5981	3	US-09-013-598-83
c 26	44.6	1.6	4403765	3	US-09-103-840A-2
c 27	44.6	1.6	4411529	3	US-09-103-840A-1

ALIGNMENTS

RESULT 1  
US-09-431-099-1  
; Sequence 1, Application US/09431099  
; Patent No. 6410705  
; GENERAL INFORMATION:  
; APPLICANT: Degussa-Hols AG  
; APPLICANT: Forschungszentrum-Jolich GmbH  
; TITLE OF INVENTION: New nucleotide sequences coding for the thrE gene and process for  
; TITLE OF INVENTION: enzymatic production of L-threonine with coryneform bacteria.  
; FILE REFERENCE: 990079 BT  
; CURRENT APPLICATION NUMBER: US/09/431,099  
; CURRENT FILING DATE: 1999-11-01  
; NUMBER OF SEQ ID NOS: 4  
; SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 1  
; LENGTH: 2817  
; TYPE: DNA  
; ORGANISM: Corynebacterium glutamicum ATCC14752  
; FEATURES:  
; NAME/KEY: CDS  
; LOCATION: (398)..(1864)  
; OTHER INFORMATION: thrE-Gen  
US-09-431-099-1

Query Match	100.0%;	Score 2817;	DB 4;	Length 2817;
Best Local Similarity	100.0%;	Pred. No. 0;		
Matches 2817;	Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0;
Qy	1	AATGAATATCCCTCACCACCTGGCGACATTCACACACCGTTTCATTTCCAAACATCG	60	
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Qy	61	AGCCAAGGAAAGAAAGAGCCCTTAAGCCCGCTTTAATTAATGGAGACTCTTTGGAGACC	120	
Db	61	AGCCAAGGAAAGAAAGAGCCCTTAAGCCCGCTTTAATTAATGGAGACTCTTTGGAGACC	120	
Qy	121	TCAAGCCAAAGAGGGGATTTTCATTAGAAATAACCCCTTTGACCTGGTGTATTGAGC	180	
Db	121	TCAAGCCAAAGAGGGGATTTTCATTAGAAATAACCCCTTTGACCTGGTGTATTGAGC	180	
Qy	181	TGGAGAGAGACTTGAACCTCTCAACCTACAGTTCAGTGGCTGCCAATTCG	240	
Db	181	TGGAGAGAGACTTGAACCTCTCAACCTACAGTTCAGTGGCTGCCAATTCG	240	
Qy	241	CCATCCAGACCCAGATGCTGATGATCAACAACCTACGAATAGCTATCTTAGCGTATGT	300	
Db	241	CCATCCAGACCCAGATGCTGATGATCAACAACCTACGAATAGCTATCTTAGCGTATGT	300	
Qy	301	GTACATCAATGAATTCGGGGCTAGAGTATCTGGTGAACCGTGCATATAAAGACCTGTG	360	
Db	301	GTACATCAATGAATTCGGGGCTAGAGTATCTGGTGAACCGTGCATATAAAGACCTGTG	360	

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Db 361 ATTGGACTCTTTTCTCTGCAAAATGTTTTCCAGGGATGTTGAGTTTTGGAGCCCTTCG 420  
Qy 421 TGCCCGCATTTCAACAGTTTGAAGCTGCAAAAGCCGACCTCGGCATCGCCACTAGCCCC 480  
Db 421 TGCCCGCATTTCAACAGTTTGAAGCTGCAAAAGCCGACCTCGGCATCGCCACTAGCCCC 480  
Qy 481 GATTGATCTACAGTACCATAGTCAAGTGGCCGGTGTGATGAATTTGGCTGCGAGAAATTGG 540  
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Qy 541 CGATATTTTGGCTTCTCTCAGGTACGTCAAAAGTGTATACCAAGTGCAAGTTTCGAGCGGT 600  
Db 541 CGATATTTTGGCTTCTCTCAGGTACGTCAAAAGTGTATACCAAGTGCAAGTTTCGAGCGGT 600  
Qy 601 GACCTCTGGGTATGGCTGTACTATACGCATGTGGATATCACGTTGTAATACGATACCCAT 660  
Db 601 GACCTCTGGGTATGGCTGTACTATACGCATGTGGATATCACGTTGTAATACGATACCCAT 660  
Qy 661 CTTTACCAACATCGGTGTGGAGAGAGATGCCGGTCAACGTGTTTCATGTTTGGGCAA 720  
Db 661 CTTTACCAACATCGGTGTGGAGAGAGATGCCGGTCAACGTGTTTCATGTTTGGGCAA 720  
Qy 721 GTTGGACACCACTTCTCCAACTGTCTGAGGTTGACCGTTTGATCCGTTTCCATTACGCG 840  
Db 721 GTTGGACACCACTTCTCCAACTGTCTGAGGTTGACCGTTTGATCCGTTTCCATTACGCG 840  
Qy 781 TGGTGCTACCCCGCTCAGGTGCGGAGAAATTCGAGCGAGTTGGAGCAATCCCTGC 840  
Db 781 TGGTGCTACCCCGCTCAGGTGCGGAGAAATTCGAGCGAGTTGGAGCAATCCCTGC 840  
Qy 841 GTCTTATGTTTCCCTGTTGCGTTGCTGGCTGGCAATGATGGGTGGCGCTGTTGCTGT 900  
Db 841 GTCTTATGTTTCCCTGTTGCGTTGCTGGCTGGCAATGATGGGTGGCGCTGTTGCTGT 900  
Qy 901 GCTGTTGGGTGGGATGCGAGTTTCCCTAATGCTTTTATACCGGTTCAAGATCAT 960  
Db 901 GCTGTTGGGTGGGATGCGAGTTTCCCTAATGCTTTTATACCGGTTCAAGATCAT 960  
Qy 961 TGCCACGACGTCAATTTTGGGAAAGAGGTTTGCTACTTTTCCAAAATGTTGTTGG 1020  
Db 961 TGCCACGACGTCAATTTTGGGAAAGAGGTTTGCTACTTTTCCAAAATGTTGTTGG 1020  
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Db 1021 TGGTTTTATTGCGCGCTGCTGCATCGAATGCTTTTATGCTTTTGGCGTTGCAATTTGCTCT 1080  
Qy 1081 TGAGATCAAAACGAGCCAGATCATCGCATCTGGAAATGTTGCTGTTGGCAGTTTGAC 1140  
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Qy 1141 ACTCTGCAATCTCTGAGGAGCGGATCA CGGCGCTCCGGTGACAGCAAGTCAAGATT 1200  
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Db 1261 TTCTGAAATCTTGATGTCATGTTGCTGCCATGGAGTCCGCTGACAGCACCTTAATTATTC 1320  
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Db 1321 GTCTACATTCGCCCGCATTAATCGCTGGCGTCACCGAGCGGCTTCGCAAGTGGGTTG 1380  
Qy 1381 TTACGGGAGTGTCTCGGTGATTAATTCGGGGCTTACTGCGCTGATGGGTTCTGCGTT 1440  
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Qy 1561 GATTGCCGGCATCACCAATGCTTCCAGGTCTAGCAATTTACCCGCGAATGTACGCCAC 1620  
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Qy 1681 ATCACTTCCCGCTGGCGTGGTTTGGGTGAGTGGATTTGCCCGCAGGCTACGTCGTCACC 1740  
Db 1681 ATCACTTCCCGCTGGCGTGGTTTGGGTGAGTGGATTTGCCCGCAGGCTACGTCGTCACC 1740  
Qy 1741 ACGTTTCAACCCCATACCGTGCATTTTACCAAGGCGAATGAGTTCTCCTTCCAGGAGGAGC 1800  
Db 1741 ACGTTTCAACCCCATACCGTGCATTTTACCAAGGCGAATGAGTTCTCCTTCCAGGAGGAGC 1800  
Qy 1801 TGAGCAGAAATCAGCGCGCGCAGAGAAAAGTCCAAAGACTAATCAAGATTCGGTAATAA 1860  
Db 1801 TGAGCAGAAATCAGCGCGCGCAGAGAAAAGTCCAAAGACTAATCAAGATTCGGTAATAA 1860  
Qy 1861 AAGTAAATCAACCTGCTTAGGGCTTTTCGCTTAAATAGCGTAGAATATCGGGTCGA 1920  
Db 1861 AAGTAAATCAACCTGCTTAGGGCTTTTCGCTTAAATAGCGTAGAATATCGGGTCGA 1920  
Qy 1921 TCGCTTTTAAACACTCAGGAGGATCCTTGGCGGCGCAAAATCACGACACTCGTCCACCC 1980  
Db 1921 TCGCTTTTAAACACTCAGGAGGATCCTTGGCGGCGCAAAATCACGACACTCGTCCACCC 1980  
Qy 1981 CAGATCCCTTCAACGCTGTGAAGAGAAACCGCAGCGGTCGCCGAGGATTTGTCGA 2040  
Db 1981 CAGATCCCTTCAACGCTGTGAAGAGAAACCGCAGCGGTCGCCGAGGATTTGTCGA 2040  
Qy 2041 CCTATTCTAAGGACTTCTTCGACGCGCTCAGTTTGTGATGTGATGCTCGGCTTGAACTC 2100  
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Qy 2101 AGGGCTCGGTTACCAAGGTGCTTCTGAACAAGAGAGCTCAGCCAAAGAGGCTA 2160  
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Db 2281 GATCTTATATGGAATGATTCCTCAATAGCTTTGTTGTTGTTGTTGTTGTTGTTGTTGTTG 2340  
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Db 2341 TGACTGTCCACCGATGTTAGTATAGCATCTCCCCCAGCCCGGTCGCTGTCACGG 2400  
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Db 2401 GGCTTTTCCCGGTTCTGGAACCAACATCGTGGATGTTGGGTGCGATGCGACTGTAG 2460  
Qy 2461 ATGTTGCAACCGAACCATTTCGAAACAGATACGGGTGTTTGTGTCACCCCTGTTGCTCA 2520  
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Qy 2521 CTGCAAGTGAAGTAAAGGCTTCTACAGGAGGCTTTTCAAAAGCAAGCGTGTGGGCTCTTT 2580  
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RESULT 2  
US-09-431-099-3  
; Sequence 3, Application US/09431099  
; Patent No. 6410705  
; GENERAL INFORMATION:  
; APPLICANT: Degussa-Höls AG  
; APPLICANT: Forschungszentrum-Jölich GmbH  
; TITLE OF INVENTION: New nucleotide sequences coding for the thrE gene and process for  
; TITLE OF INVENTION: enzymatic production of L-threonine with coryneform bacteria.  
; FILE REFERENCE: 990079 BT  
; CURRENT APPLICATION NUMBER: US/09/431,099  
; CURRENT FILING DATE: 1999-11-01  
; NUMBER OF SEQ ID NOS: 4  
; SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 3  
; LENGTH: 1909  
; TYPE: DNA  
; ORGANISM: Corynebacterium glutamicum ATCC13032  
; FEATURE:  
; NAME/KEY: CDS  
; LOCATION: (280)..(1746)  
; OTHER INFORMATION: thrE-Gen  
US-09-431-099-3

Query Match 65.2%; Score 1836.6; DB 4; Length 1909;  
Best Local Similarity 99.0%; Pred. No. 0;  
Matches 1848; Conservative 0; Mismatches 19; Indels 0; Gaps 0;

Qy 156 CCCCTTTGACCTGGTGTATTGAGCTGGAGAAGAGACTTGAACCTCAACCTACGCATT 215  
Db 38 CCCCTTTGACCTGGTGTATTGAGCTGGAGAAGAGACTTGAACCTCAACCTACGCATT 97  
Qy 216 CAAGTGGCTTGGCTGCCAATTCGCCCACTCCAGCAGCGAGATGCTGATGATCAACAAC 275  
Db 98 CAAGTGGCTTGGCTGCCAATTCGCCCACTCCAGCAGCGAGATGCTGATGATCAACAAC 157  
Qy 276 TACGAATACGTATCTTAGCGTATGTGTACATCAATGGAATTCGGGCTAGATATCTG 335  
Db 158 TACGAATACGTATCTTAGCGTATGTGTACATCAATGGAATTCGGGCTAGATATCTG 217  
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Db 218 GTGAACCGTGCATAAAGCACTGTGATTTGAGTCTTTTCTCTGCAAAATGTTTCCAGC 277  
Qy 396 GGATGTTGAGTTTTCGACCCCTTCGTGGCGCATTTCAACAGTTGACGCTGCAAAAGCG 455  
Db 278 GGATGTTGAGTTTTCGACCCCTTCGTGGCGCATTTCAACAGTTGACGCTGCAAAAGCG 337  
Qy 456 CACCTCCGCCATCGCCATAGCCCCCGATTGATCTCACTGACCATAGTCAAGTGGCCGGTG 515  
Db 338 CACCTCCGCCATCGCCATAGCCCCCGATTGATCTCACTGACCATAGTCAAGTGGCCGGTG 397

Qy 516 TGATGAATTTGGCTGCGAGAAATTGGCGATATTTTGTCTTTCTTCAGGTACGTCAACAGTG 575  
Db 398 TGATGAATTTGGCTGCGAGAAATTGGCGATATTTTGTCTTTCTTCAGGTACGTCAACAGTG 457  
Qy 576 ATACCAAGGTGCAAGTTTCGAGCGGTGACCTCTGCGTATGGCTGTACTATACGATGTGG 635  
Db 458 ACACCAAGGTGCAAGTTTCGAGCGGTGACCTCTGCGTATGGCTGTACTATACGATGTGG 517  
Qy 636 ATATCAGGTTGAAATACCATCACCATCTTCAACCAATCGGTGTGAGAGAGATGCGGG 695  
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Qy 696 TCAACGTTGTTTCATGTTGTGGGCAAGTTGGACACCAATCTTCCAAATCTGTCTAGGTTG 755  
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Qy 756 ACCGTTTGATCCGTTCCATTCAGGCTGCTGCTACCCCGCTGAGGTTGCCGAGAAATTC 815  
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Qy 816 TGGACGAGTTGGAGCAATCGCTGCTTATGTTTCCCTGTTGCTTGGCTGGG 875  
Db 698 TGGACGAGTTGGAGCAATCGCTGCTTATGTTTCCCTGTTGCTTGGCTGGG 757  
Qy 876 CAATGATGGGTGGCGCTGTTGCTGCTGTTGGGTGGTGGATGCGAGGTTTCCCTAATG 935  
Db 758 CAATGATGGGTGGCGCTGTTGCTGCTGTTGGGTGGTGGATGCGAGGTTTCCCTAATG 817  
Qy 936 CTTTATATACCGGTTTACGATCATTCGCCAGCGTCATTTTGGGAAAGAGGTTTGC 995  
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Qy 996 CTACTTTTCCAAATGTTGTTGTTGTTTATGTCACGCTGCTGCATCGATTGCTT 1055  
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Qy 1056 ATTCTTTGGCGTTGCAATTTGGTCTTGAGATCAACCGAGCGCAATCATCGCATCTGAA 1115  
Db 938 ATTCTTTGGCGTTGCAATTTGGTCTTGAGATCAACCGAGCGCAATCATCGCATCTGAA 997  
Qy 1116 TTGTTGCTGTTGGCAGGTTTGACATTTGCGAATCTCTGACAGACGGCATCAGGGCG 1175  
Db 998 TTGTTGCTGTTGGCAGGTTTGACATCTGTCGAATCTCTGACAGACGGCATCAGGGCG 1057  
Qy 1176 CTCGGGTGACAGCAAGTGACGATTTTGAACACCTCTGTTTACCGGGCGCATTTGTTG 1235  
Db 1058 CTCGGGTGACAGCAAGTGACGATTTTGAACACCTCTGTTTACCGGGCGCATTTGTTG 1117  
Qy 1236 CTGCGTGGGTTTGGGCATTCAGCTTTCTGAAATCTTTGCAATGTCAATGTTGCTGCCATGG 1295  
Db 1118 CTGCGTGGGTTTGGGCATTCAGCTTTCTGAAATCTTTGCAATGTCAATGTTGCTGCCATGG 1177  
Qy 1296 AGTCGCTGACGACACCTAATTTTCGTCTACATTCGCGCCGCAATTCGCTGGTGGCGTCA 1355  
Db 1178 AGTCGCTGACGACACCTAATTTTCGTCTACATTCGCGCCGCAATTCGCTGGTGGCGTCA 1237  
Qy 1356 CCGCAGCGGCTTCGCGAGTGGTTGTTACGCGAGTGGTCTCTCGTGATTAATTCGGGGC 1415  
Db 1238 CCGCAGCGGCTTCGCGAGTGGTTGTTACGCGAGTGGTCTCTCGTGATTAATTCGGGGC 1297  
Qy 1416 TTACTGCGCTGATGGGTTCTGCGTTTATTAACCTCTCTGTTGTTTATTTAGGCCCGCT 1475  
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Qy 1476 CTGCGCTGCGATTTGCTGCAACAGCAGTGGTTTCACTGGTGGTTTGTGTCCTCGAT 1535  
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Qy 1536 TCTTGAATCCACCGTTGATTTGTGGCGATTCGCGCATCACCAATGCTTCCAGTCTAG 1595  
Db 1418 TCTTGAATCCACCGTTGATTTGTGGCGATTCGCGCATCACCAATGCTTCCAGTCTAG 1477  
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QY 2531 CTATGAAGGCTTCTACGAGGCGCTTTTCAAACCAACGCTGTGGCGCTCTTTTCCACGATTT 2590  
Db 28136 TGTGCCGAGTACTACGAGGGGTTCTCGAACCCACGCTGTGGCGCTTATACCAACGCGT 28195  
QY 2591 GATTGTTTACTCGGTGTACAAACACCGATTTGTTGGCATGCGTTTCGGGAAGTAAACCTCAA 2650  
Db 28196 CATCTGAAGCCATTATACCACTGCGAATGGTGGGAAGCTACGTCGATGTCAACCGGCG 28255  
QY 2651 GTTCGCTGAAGCGGTGAGCAAGTGGCGGCACACGCTGCCACTGTGTGGTGCAGACTA 2710  
Db 28256 CTTGCCGAAACAAACGTCACGACACGCGCTTACGTTGGACCGGTATGGGTGCAGACTA 28315  
QY 2711 TCAGCTGTGCTGTTCTCTGGCATTTTGGCCAGATGGCCCTGATTTGAAGATCGGTTT 2770  
Db 28316 CCAACTGCANTGGTACCGAAGATGCTGGCGCATATGGCCCGGACTTGCACATCGGTTT 28375  
QY 2771 CTTCTCCACATTCCTTCCCTTCCCTTGATCTGTTCCGTCAAGTGC 2817  
Db 28376 CTTCTTGACATCCCGTTCCCGCGGTGGAGCTGTTTCATGCAGATAC 28422

## RESULT 7

US-09-214-808-1  
; Sequence 1, Application US/09214808A  
; Patent No. 6475793  
; GENERAL INFORMATION:  
; APPLICANT: Rosenthal, Andre  
; APPLICANT: Freiberg, Christoph  
; APPLICANT: Perret, Xavier Philippe  
; APPLICANT: Broughton, William John  
; TITLE OF INVENTION: Genomic Sequence of Rhizobium SP. NGR 234 Symbiotic  
; Patent No. 6475793  
; TITLE OF INVENTION: Plasmid  
; FILE REFERENCE: CARP0068  
; CURRENT APPLICATION NUMBER: US/09/214,808A  
; CURRENT FILING DATE: 1993-06-22  
; PRIOR APPLICATION NUMBER: PCT/IB97/00950  
; PRIOR FILING DATE: 1997-07-10  
; NUMBER OF SEQ ID NOS: 1  
; SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 1  
; LENGTH: 536165  
; TYPE: DNA  
; ORGANISM: Rhizobium  
US-09-214-808-1

Query Match 2.6%; Score 72.2; DB 4; Length 536165;  
Best Local Similarity 52.5%; Pred. No. 1.1e-10;  
Matches 158; Conservative 0; Mismatches 143; Indels 0; Gaps 0;  
QY 2517 CTCACGAGTGAATGAAGGCTTCTACGAGGCGCTTTCAAACGCAACGCTGTGGCT 2576  
Db 317398 CTGACCGATACCGAGGTAGAGGAATACCTACCAAGGCTTGGCAACCGGCTTCTGTGGCG 317457  
QY 2577 CTTTTCACGATTTGATTTACTCCGGTGTACACACGATTTGGTGCATGCGTTTCGG 2636  
Db 317458 ATTTGCCACTACCGCTTATCTCCGGAATACGTCGCAAGGAATGGCCGGTATTTTC 317517  
QY 2637 GAAGTAACCTCAAGTTCGCTGAACCGGTGAGCCAAAGTGGCGGCAACGCTGCCACTGTG 2696  
Db 317518 CGCGTCAACCGCTTCTCGCCCATCGCTGGCGCGCTTGTCAAACCCGATGACGTCAAT 317577  
QY 2697 TGGGTGACGAGTATACGCTGTGTGTTCTGTGCTATTTGCGCCAGATGGCCCTGAT 2756  
Db 317578 TGGGTGACGAGTATACCTTGTATTCCTCTCGCCGCGGAATCGCTCAGATGGCCCTGGAG 317637  
QY 2757 TTGAAGATCGGTTTCTCTCCACATTCCTTCCCTTCCCTTGATCTGTTCCGTCAAGTGTG 2816  
Db 317638 AACGCGATCGGCTTCTCTCCACATTCCTTCCCTTGATCTGTTCCGTCAAGTGTG 317697  
QY 2817 C 2817

Db 317698 C 317698

## RESULT 8

US-08-569-150A-2  
; Sequence 2, Application US/08569150A  
; Patent No. 5925804  
; GENERAL INFORMATION:  
; APPLICANT: Hoekema, Andreas  
; APPLICANT: Pen, Jan  
; APPLICANT: Does, Mirjam P  
; APPLICANT: Van Den Elzen, Petrus J. M  
; TITLE OF INVENTION: PRODUCTION OF TREHALOSE IN PLANTS  
; NUMBER OF SEQUENCES: 21  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Ladas & Parry  
; STREET: 26 West 61st Street  
; CITY: New York  
; STATE: NY  
; COUNTRY: USA  
; ZIP: 10023  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: 3 1/4" disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: WordPerfect for Windows  
; SOFTWARE: WordPerfect 8  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/569,150A  
; FILING DATE: 21-DEC-1995  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: PCT/EP/94/02167  
; FILING DATE: 30-JUNE-1994  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Mass, Clifford J.  
; REGISTRATION NUMBER: 30,086  
; REFERENCE/DOCKET NUMBER: U-010552-5  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (212) 708-1890  
; TELEFAX: (212) 246-8959  
; TELEX: No. 5925804e  
; INFORMATION FOR SEQ ID NO: 2:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 1446 base pairs  
; TYPE: nucleic acid  
; STRANDEDNESS: double  
; TOPOLOGY: linear  
; MOLECULE TYPE: DNA (genomic)  
; HYPOTHETICAL: NO  
; ORIGINAL SOURCE:  
; ORGANISM: Escherichia coli  
; IMMEDIATE SOURCE:  
; CLONE: 7F11  
; POSITION IN GENOME:  
; MAP POSITION: 41-42,  
; FEATURE:  
; NAME/KEY: CDS  
; LOCATION: 19..1446  
; OTHER INFORMATION: /product= "trehalose phosphate synthase"  
; OTHER INFORMATION: /gene= "otsA"  
US-08-569-150A-2

Query Match 2.5%; Score 71.6; DB 2; Length 1446;  
Best Local Similarity 49.1%; Pred. No. 1.4e-12;  
Matches 222; Conservative 0; Mismatches 224; Indels 6; Gaps 1;  
QY 2372 CTCGCCACGCCCCGCTGTGTACGCGGCGTTTCCCCCGTTCTGGAAACAAACATCGTGG 2431  
Db 75 CGCCCGCAGTCCCGTGGCGCTTCCGTTGGCATACTGGGGGCACTGAAAGCCGCGAGCGG 134  
QY 2432 ATGTTGGTGGATGGCGCTTGGAACTGTAGATGTTGCCACCCGACCACTTTCGACAGATAC 2491  
Db 135 ACTGTGTTGGCTGGAGTGGTGAACAGGGGAATGAGGATCAGCCGCTAAAAAAGGTGAA 194



QY 2492 GGGTG-----TTTTGTGACACCTGTGTCTCCTCACTGCAAGTCACTATGAAGCTTCTA 2545  
Db 195 AABAGGTAAACATTACGTGGGCTCTTTTAACCTCAGGAACAGGACCTTGACGAATACTA 254  
QY 2546 CGAGGGCTTTTCAACGCAAGCTGTGGCCTCTTTTCCAGATTTGATTTACTCCGGT 2605  
Db 255 CAACCAATTCTCCAATCCGTTCTCTGGCCGGCTTTTCAATTATCGGCTCATCTGGTGCA 314  
QY 2606 GTACAAACACCGATTGGTGGCATGGTTTCGGGAAGTAAACCTCAAGTTGCTGAAAGCCGT 2665  
Db 315 ATTTACGGCTCTGCTCGGACCGCTATCTACCGCTAAATGCGTTGCTGGCAGATAAAT 374  
QY 2666 GAGCCAAAGTGGCGCACACCGTGCCACTGTGTGGGTGCGAGACTATCAGCTGTGGTGGT 2725  
Db 375 ACTGCCCTGTTCGAAGACGATGACATTATCTGGATCCAGATTATCAGCTGTGGCAAT 434  
QY 2726 TCTGGCAATTTGGCCAGATGCGCCTGATTTGAAGATGGTTTCTCTCCACATTC 2785  
Db 435 TGGCATGAATTACGCAACGGGAGTGAATATCGCATTTGGTTTCTTCTGCATATTC 494  
QY 2786 CTTCCCTTCCCTGATCTGTTCGGTCAGCTGC 2817  
Db 495 TTTCCGACACCGGAATCTTCAACGGCTGC 526

## RESULT 9

US-08-274-121B-1  
; Sequence 1, Application US/08274121B  
; Patent No. 6133034

## GENERAL INFORMATION:

; APPLICANT: Arne Reidar Strom  
; APPLICANT: Inga Kaasen  
; APPLICANT: Olaf Bay Styrvold  
; APPLICANT: John McDougall  
; TITLE OF INVENTION: Methods and Compositions  
; TITLE OF INVENTION: Related to the Production  
; TITLE OF INVENTION: of Trehalose  
; NUMBER OF SEQUENCES: 6  
; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Calgene, Inc.  
; STREET: 1920 Fifth Street  
; CITY: Davis  
; STATE: CA  
; COUNTRY: USA  
; ZIP: 95616

## COMPUTER READABLE FORM:

; MEDIUM TYPE: Diskette, 3.50 inch, 2.0 MB  
; COMPUTER: Apple Macintosh  
; OPERATING SYSTEM: Macintosh 7.1  
; SOFTWARE: Microsoft Word 5.1 (a)  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/274,121B  
; FILING DATE: 12-JULY-1994  
; CLASSIFICATION: 435  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: 07/893,099  
; FILING DATE: 27-MAY-1992  
; CLASSIFICATION: 435  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Elizabeth Lassen  
; REGISTRATION NUMBER: 31,845  
; NAME: Donna E. Scherer  
; REGISTRATION NUMBER: 34,719  
; REFERENCE/DOCKET NUMBER: CGNE 86(1)  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (916) 753-6313  
; TELEFAX: (916) 753-1510  
; INFORMATION FOR SEQ ID NO: 1:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 2868 base pairs  
; TYPE: nucleic acid  
; STRANDEDNESS: double

; TOPOLOGY: linear  
; MOLECULE TYPE: genomic DNA  
US-08-274-121B-1

Query Match 2.5%; Score 71.6; DB 3; Length 2868;  
Best Local Similarity 49.1%; Pred. No. 2.4e-12;  
Matches 222; Conservative 0; Mismatches 224; Indels 6; Gaps 1;

QY 2372 CTCCTCCAGCCCCGGTGGCTTGTCAAGGGGCTTTCCCGGCTTCTCGAACAACATCGTGG 2431  
Db 1500 CGCCGCCAGTCCGGTGGCTTGGCGTTGGCATACTGGGGCACTGAAGCCGAGCGG 1559  
QY 2432 ATGTTGGTGGATGGCTTGGAACTGTAGATTTGACACCGAACCATTGTTGAAACAGATAC 2491  
Db 1560 ACTGTGTTGGCTGGAGTGGTGAACACAGGGAATGAGGATCAGCCGCTAAAAAAGGTGAA 1619  
QY 2492 GGGTG-----TTTGTGTCGACCCCTGTGTCTCTCACTGCAAGTCACTATGAAGCTTCTA 2545  
Db 1620 AAAAGGTAAACATTACGTGGGCTCTTTTAACTCAGGAAACAGGACCTTGACGAATACTA 1679  
QY 2546 CGAGGGCTTTTCAACGCAAGCTGTGGCCTCTTTTCCAGATTTGATTTACTCCGGT 2605  
Db 1680 CAACCAATTCTCCAATCCGTTCTCTGGCCGGCTTTTCAATTATCGGCTCGATCTGGTGA 1739  
QY 2606 GTACAAACACCGATTGGTGGCATGGTTTCGGGAAGTAAACCTCAAGTTGCTGAAAGCCGT 2665  
Db 1740 ATTTACGGCTCTGCTCGGACCGGCTATCTACCGCTAAATGCGTTGCTGGCAGATAAAT 1799  
QY 2666 GAGCCAAAGTGGCGCACACCGTGCCACTGTGTGGGTGCGAGACTATCAGCTGTGTGGT 2725  
Db 1800 ACTGCCCTGTTCGAAGACGATGACATTATCTGGATCCAGATTATCAGCTGTGGCAAT 1859  
QY 2726 TCTGGCAATTTGGCCAGATGCGCCTGATTTGAAGATGGTTTCTCTCCACATTC 2785  
Db 1860 TGGCATGAATTACGCAACGGGAGTGAATATCGCATTTGGTTTCTTCTGCATATTC 1919  
QY 2786 CTTCCCTTCCCTGATCTGTTCGGTCAGCTGC 2817  
Db 1920 TTTCCGACACCGGAATCTTCAACGGCTGC 1951

## RESULT 10

US-09-489-039A-7037  
; Sequence 7037, Application US/09489039A  
; Patent No. 6610836

## GENERAL INFORMATION:

; APPLICANT: Gary Breton et. al  
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA  
; TITLE OF INVENTION: PNEUMONIAE FOR DIAGNOSTICS AND THERAPEUTICS  
; FILE REFERENCE: 2709.2004001  
; CURRENT APPLICATION NUMBER: US/09/489,039A  
; CURRENT FILING DATE: 2000-01-27  
; PRIOR APPLICATION NUMBER: US 60/117,747  
; PRIOR FILING DATE: 1999-01-29  
; NUMBER OF SEQ ID NOS: 14342  
; SEQ ID NO 7037  
; LENGTH: 1479  
; TYPE: DNA  
; ORGANISM: Klebsiella pneumoniae  
US-09-489-039A-7037

Query Match 2.5%; Score 70.2; DB 4; Length 1479;  
Best Local Similarity 52.6%; Pred. No. 4.2e-12;  
Matches 153; Conservative 0; Mismatches 138; Indels 0; Gaps 0;

QY 2516 CCTCACTGCAAGTGAATGATGAAGGCTTCTACAGGGCTTTTCAACGCAACGCTGTGGCC 2575  
Db 255 CCTTAATGAACGGGACCATGATGAATACTACAACAGTTCTTAACCGCGTGTGTGGCC 314  
QY 2576 TCTTTTCCAGATTTGATTTGTTTACTTCGGGTGTACAAACCGGATTTGGTGGCATTCG 2635  
Db 315 GGTCTTCCACTATCGCCTTGATCTGGTCAGCTTTTCAGCGGCAAGCCTGGGAGGATATCT 374





GENERAL INFORMATION:  
APPLICANT: Conner, Timothy W  
TITLE OF INVENTION: Plant Regulatory Sequences for Selective Control of Gene Expression

FILE REFERENCE: 06009.0019.NPUS00 (RENN:019)  
CURRENT APPLICATION NUMBER: US/09/651,169A  
CURRENT FILING DATE: 2000-08-30  
NUMBER OF SEQ ID NOS: 51  
SOFTWARE: PatentIn version 3.0  
SEQ ID NO 36  
LENGTH: 654  
TYPE: DNA  
ORGANISM: Zea Mays  
US-09-651-169A-36

Query Match 1.7%; Score 48; DB 4; Length 654;  
Best Local Similarity 51.4%; Pred.No. 5.1e-05;  
Matches 108; Conservative 1; Mismatches 101; Indels 0; Gaps 0;  
QY 2608 ACAACACCGATTGGTGGCATGGTTTCGGGAAGTAAACCTCAAGTTTCGCTGAAGCCGTGA 2667  
DB 359 ACCGAGCGCTGGGAGGGTACGTGCTGCCAACAAAGTTCTTTCGAGAGGTGCTGCG 418  
QY 2668 GCCAAGTGGCGGCAACCGGTGCCACTGTGTGGGTGCAGGACTATCAGCTGTGTGCTGTTTC 2727  
DB 419 AGGTAATCAACCCGGAGGATGACTACGTTTGGGTTTCAGGACTTACCATCTCATGGCGCTGC 478  
QY 2728 CTGGCATTTTGGCCAGATGGCCCTGATTGAGATCGGTTCTTCTCCATCCATTCCT 2787  
DB 479 CTACCTTCTCGCGCGCTGTTTCAACCGCTCCGATCGGATCTTCTCTCCACACCCCT 538  
QY 2788 TCCCTTCCCTGATCTGTTCGTCAGTGC 2817  
DB 539 TCCCTCGTCCGAGATCTACCGCACCTTCC 568

RESULT 15  
US-08-232-463-14  
Sequence 14, Application US/08232463  
Patent No. 5670367  
GENERAL INFORMATION:  
APPLICANT: DORNER, F.  
APPLICANT: SCHEIFLINGER, F.  
APPLICANT: FALKNER, F. G.  
TITLE OF INVENTION: RECOMBINANT FOMLOX VIRUS  
NUMBER OF SEQUENCES: 52  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Foley & Lardner  
STREET: 1800 Diagonal Road, Suite 500  
CITY: Alexandria  
STATE: VA  
COUNTRY: USA  
ZIP: 22313-0299  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: PatentIn Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/232,463  
FILING DATE:  
CLASSIFICATION: 435  
PRIOR APPLICATION DATA:  
PRIOR APPLICATION NUMBER: US/07/935,313  
FILING DATE:  
APPLICATION NUMBER: EP 91 114 300.6  
FILING DATE: 26-AUG-1991  
ATTORNEY/AGENT INFORMATION:  
NAME: BENT, Stephen A.  
REGISTRATION NUMBER: 29,768  
REFERENCE/DOCKET NUMBER: 30472/114 IMMU  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (703)836-9300

TELEPAX: (703)683-4109  
TELEX: 899149  
INFORMATION FOR SEQ ID NO: 14:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 7218 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
IMMEDIATE SOURCE:  
CLONE: pTZgpt-Fls  
US-08-232-463-14

Query Match 1.7%; Score 47.6; DB 1; Length 7218;  
Best Local Similarity 3.6%; Pred.No. 0.00048;  
Matches 14; Conservative 218; Mismatches 162; Indels 0; Gaps 0;  
QY 1175 GCTCCGCTGACGCAAGTCAGCATTTTTCGAAACACTCCTGTTTACCGCGGCATTGTT 1234  
DB 1042 GCTGACGTCGAGGAGCTTGCATYVYVYVYVYVYVYVYVYVYVYVYVYVYVYVYVYVY 1101  
QY 1235 GCTGGCGTGGTTCGGCATTACGTTTCTGAAATCTTGCAATCTGATGTCGCTGCCTGCATG 1294  
DB 1102 YVY 1161  
QY 1295 GAGTCCGCTGCAGCACCTAATTATTCGTCTACATTCGCCCGCATTCGCTGGTGGCGTC 1354  
DB 1162 YVY 1221  
QY 1355 ACCGACGCGCCTTCGAGTGGTTCGTCGAGAGTGGTCTCGTGATTAATTGCGGG 1414  
DB 1222 YVY 1281  
QY 1415 CTACTGCGCTGATGGTTCGCTGTTTATTACTCTCTGCTGTTTATTAGCCCGCTC 1474  
DB 1282 YVY 1341  
QY 1475 TCTGCCGCTGCGATTGCTGCAACAGCAGTTGTTTCACTGGTGGTTCGCTTGCCTGCCGTCGA 1534  
DB 1342 YVY 1401  
QY 1535 TTCTTGATTCCACCGTTGATTGTCGATTCGCG 1568  
DB 1402 YVY 1435

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GenCore version 5.1.6  
Copyright (c) 1993 - 2005 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: January 14, 2005, 09:56:14 ; Search time 1431.15 Seconds  
(without alignments)  
11309.899 Million cell updates/sec

Title: US-09-963-521-1  
Perfect score: 2817  
Sequence: 1 aatgaataatccctcacc.....tgatctgttcgtcagctgc 2817

Scoring table: IDENTITY\_NUC

Gapop 10.0 , Gapext 1.0

Searched: 4300275 seqs, 2872944193 residues

Total number of hits satisfying chosen parameters: 8600550

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Listing first 45 summaries

Database : Published Applications NA:\*

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- 3: /cgn2\_6/ptodata/2/pubpna/US06\_NEW\_PUB.seq:\*
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- 6: /cgn2\_6/ptodata/2/pubpna/PCTUS\_PUBCOMB.seq:\*
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- 11: /cgn2\_6/ptodata/2/pubpna/US09C\_PUBCOMB.seq:\*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
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2	2817	100.0	2817	9	US-09-963-521-1
3	2817	100.0	2817	9	US-09-834-721-1
4	2817	100.0	2817	9	US-09-783-388-1
5	2817	100.0	2817	10	US-09-951-535-1
6	2817	100.0	2817	17	US-10-224-574-9
7	2783.4	98.8	3309400	9	US-09-738-626-1
8	1836.6	65.2	1909	9	US-09-951-536-3
9	1836.6	65.2	1909	9	US-09-963-521-3
10	1836.6	65.2	1909	9	US-09-834-721-3
11	1836.6	65.2	1909	9	US-09-783-388-3
12	1836.6	65.2	1909	10	US-09-951-535-3

13	1836.6	65.2	1909	17	US-10-224-574-11	Sequence 11, Appli
14	1561.2	55.4	1590	16	US-10-627-476-557	Sequence 557, App
15	1561.2	55.4	1590	16	US-10-450-055-41	Sequence 41, Appli
16	1474.2	52.3	1503	9	US-09-738-626-2884	Sequence 2884, Ap
17	1405.6	49.9	3010	13	US-10-058-345-1	Sequence 1, Appli
18	1405.6	49.9	3010	18	US-10-801-847-1	Sequence 1, Appli
19	969.6	34.4	2369	9	US-09-895-382-29	Sequence 29, Appli
20	625.8	22.2	1578	16	US-10-450-055-29	Sequence 29, Appli
21	525.8	18.7	1455	9	US-09-738-626-2886	Sequence 2886, Ap
22	327	11.6	327	9	US-09-738-626-2885	Sequence 2885, Ap
23	157.8	5.6	1503	9	US-09-712-363-128	Sequence 128, App
24	111.2	3.9	1446	15	US-10-369-493-39291	Sequence 39291, A
25	111.2	3.9	1446	15	US-10-369-493-39666	Sequence 39666, A
26	111.2	3.9	1446	15	US-10-369-493-40025	Sequence 40025, A
27	96.2	3.4	1377	15	US-10-369-493-42956	Sequence 42956, A
28	89.4	3.2	261	9	US-09-867-550-445	Sequence 445, App
29	81.8	2.9	1362	15	US-10-369-493-41490	Sequence 41490, A
30	80.2	2.8	1359	15	US-10-369-493-28393	Sequence 28393, A
31	80.2	2.8	1407	15	US-10-369-493-31152	Sequence 31152, A
32	75.8	2.7	1368	15	US-10-369-493-31089	Sequence 31089, A
33	75.8	2.7	1407	15	US-10-369-493-28331	Sequence 28331, A
34	74.4	2.6	1323	15	US-10-369-493-37290	Sequence 37290, A
35	74.2	2.6	1356	15	US-10-369-493-39284	Sequence 39284, A
36	74.2	2.6	1356	15	US-10-369-493-39661	Sequence 39661, A
37	74.2	2.6	1356	15	US-10-369-493-40023	Sequence 40023, A
38	72.2	2.6	536165	10	US-09-939-964-1	Sequence 1, Appli
39	71.6	2.5	1425	15	US-10-369-493-24561	Sequence 24561, A
40	71.6	2.5	1450	15	US-10-682-456-1	Sequence 1, Appli
41	71.2	2.5	1500	15	US-10-369-493-26438	Sequence 26438, A
42	69.8	2.5	1448	15	US-10-369-493-44630	Sequence 44630, A
43	68.2	2.4	1374	15	US-10-369-493-28062	Sequence 28062, A
44	68.2	2.4	1374	15	US-10-369-493-30816	Sequence 30816, A
45	66.2	2.4	1389	15	US-10-156-761-3920	Sequence 3920, Ap

ALIGNMENTS

RESULT 1

US-09-951-536-1  
; Sequence 1, Application US/09951536  
; Patent No. US20020107378A1  
; GENERAL INFORMATION:  
; APPLICANT: ZIEGLER, PETRA  
; APPLICANT: EGGELE, LOTHAR  
; APPLICANT: SAHM, HERMANN  
; APPLICANT: THIERBACH, GEORG  
; TITLE OF INVENTION: NEW NUCLEOTIDE SEQUENCES CODING FOR THE THREE GENE AND  
; TITLE OF INVENTION: PROCESS FOR THE ENZYMATIC PRODUCTION OF L-THREONINE  
; TITLE OF INVENTION: USING CORYNEFORM BACTERIA  
; FILE REFERENCE: 21123/282414/MAS  
; CURRENT APPLICATION NUMBER: US/09/951.536  
; PRIOR FILING DATE: 2001-09-14  
; PRIOR APPLICATION NUMBER: 09/431,099  
; PRIOR FILING DATE: 1999-11-01  
; NUMBER OF SEQ ID NOS: 10  
; SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 1  
; LENGTH: 2817  
; TYPE: DNA  
; ORGANISM: Corynebacterium glutamicum  
; FEATURE:  
; NAME/KEY: CDS  
; LOCATION: (398)..(1864)  
; OTHER INFORMATION: thrE-Gen  
; OTHER INFORMATION: thrE-Gen  
US-09-951-536-1

Query Match 100.0%; Score 2817; DB 9; Length 2817;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 2817; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
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Db 1 AATGAAATATATCCCTCAACCACTGGGAGCAITTCAAACACCCGTTTCATTTCCAAACATCG 60  
Qy 61 AGCCAAAGGAAAGAAAGCCCTTAAGCCCGTGTATTAAATGGAGACTCTTTGGAGACC 120  
Db 61 AGCCAAAGGAAAGAAAGCCCTTAAGCCCGTGTATTAAATGGAGACTCTTTGGAGACC 120  
Qy 121 TCAAGCAAAAAGGGGCAATTTTCATTAAAGAAATACCCCTTTTGACCTGGTGTATTGGAGC 180  
Db 121 TCAAGCCAAAAGGGGCAATTTTCATTAAAGAAATACCCCTTTTGACCTGGTGTATTGGAGC 180  
Qy 181 TGGAGAAGAGACTTGAACCTCTCAACCTACGATTAACAGTGGCGTGCCTGCAATTCGG 240  
Db 181 TGGAGAAGAGACTTGAACCTCTCAACCTACGATTAACAGTGGCGTGCCTGCAATTCGG 240  
Qy 241 CCACTCCAGCACCGCAGATGCTGATGATCAACCTACGAAATACGTAATCTTTAGCGTATGT 300  
Db 241 CCACTCCAGCACCGCAGATGCTGATGATCAACCTACGAAATACGTAATCTTTAGCGTATGT 300  
Qy 301 GTACATCAATGGAAATTCGGGGCTAGAGTATCTGGTGAACCGTGCATAAACGACCTGTG 360  
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Qy 361 ATTGAGACTCTTTTCTGTCAAAATGTTTTTCAGCGGATGTTGAGTTTGGAGACCTTCG 420  
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Qy 421 TGGCGCGCATTTCAACAGATTGACGCTGCAAAAGCCGACCTCGCCATCGCCACTAGCCCC 480  
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Qy 481 GATTGATCTACTGACCATAGTCAAGTGGCGGCTGTGATGATTTGGCTGGAGAAATGG 540  
Db 481 GATTGATCTACTGACCATAGTCAAGTGGCGGCTGTGATGATTTGGCTGGAGAAATGG 540  
Qy 541 CGATATTTTGTCTTCTTCAGGTACGTCAAAACGATGATCAAGGTGCAAGTTTCAGCGGT 600  
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Qy 721 GTTGACACCAACTCTCCAACTGTCTGAGGTGACCGTTGATCGGTTCCATTCAGGC 780  
Db 721 GTTGACACCAACTCTCCAACTGTCTGAGGTTGACCGTTTGTATCCGTTCCATTCAGGC 780  
Qy 781 TGGTGCTACCCGCTGAGGTTGCCGAGAAATTCGGACGAGTTGGAGCAATCGCCTGC 840  
Db 781 TGGTGCTACCCGCTGAGGTTGCCGAGAAATTCGGACGAGTTGGAGCAATCGCCTGC 840  
Qy 841 GTCTATGGTTTCCCTGTGTGGCTGTGGCTGGGCAATGATGGGTGGCGCTGTGTCTGT 900  
Db 841 GTCTATGGTTTCCCTGTGTGGCTGTGGCTGGGCAATGATGGGTGGCGCTGTGTCTGT 900  
Qy 901 GCTGTTGGTGTGATGGCAGGTTTCCCTAAATGCTTTTATTAACCGGTTACGATCAT 960  
Db 901 GCTGTTGGTGTGATGGCAGGTTTCCCTAAATGCTTTTATTAACCGGTTACGATCAT 960  
Qy 961 TGCCACGACGTCATTTTTTGGGAAAGAGGGTTTGCCTACTTTTCTTCCAAAATGTTGTGG 1020  
Db 961 TGCCACGACGTCATTTTTTGGGAAAGAGGGTTTGCCTACTTTTCTTCCAAAATGTTGTGG 1020  
Qy 1021 TGGTTTTATTCGACGCTGCTGATCGATTCGATTCGTTTATCTTTTGGCGTGTGCAATTTGGTCT 1080  
Db 1021 TGGTTTTATTCGACGCTGCTGATCGATTCGATTCGTTTATCTTTTGGCGTGTGCAATTTGGTCT 1080  
Qy 1081 TGAGATCAAAACCGAGCCAGATCATTCGATCTCGAAATGTTGTCTGTTGGCAGGTTTGAC 1140  
Db 1081 TGAGATCAAAACCGAGCCAGATCATTCGATCTCGAAATGTTGTCTGTTGGCAGGTTTGAC 1140

Qy 1141 ACTTGTGCAATCTCTGAGGACGGCATCACGGGCGCTCCGGTGACAGCAAGTGACAGATT 1200  
Db 1141 ACTTGTGCAATCTCTGAGGACGGCATCACGGGCGCTCCGGTGACAGCAAGTGACAGATT 1200  
Qy 1201 TTTTGAACAACACTCTGTTTACCGCGGCAATGTTGCTGGCGTGGGTTTGGCAATTCAGCT 1260  
Db 1201 TTTTGAACAACACTCTGTTTACCGCGGCAATGTTGCTGGCGTGGGTTTGGCAATTCAGCT 1260  
Qy 1261 TTCTGAANAATCTTGATGTGATGTTCCCTGCGCATGGAGTCCGCTGCAGCACCTAATATTTC 1320  
Db 1261 TTCTGAANAATCTTGATGTGATGTTCCCTGCGCATGGAGTCCGCTGCAGCACCTAATATTTC 1320  
Qy 1321 GTCTACATTCGCCCGCAATTCGCTGCTGGGTGTCACCGCAGCGGCTTCGCAGTGGGTG 1380  
Db 1321 GTCTACATTCGCCCGCAATTCGCTGCTGGGTGTCACCGCAGCGGCTTCGCAGTGGGTG 1380  
Qy 1381 TTACGCGGAGTGGTCTCGGTGATTTTGGGGGCTTACTGCGCTGATGGGTTCTCGGTT 1440  
Db 1381 TTACGCGGAGTGGTCTCGGTGATTTTGGGGGCTTACTGCGCTGATGGGTTCTCGGTT 1440  
Qy 1441 TTATTACCTCTTCTGTTGTTTATTATTAGGCCCGCTCTCTGCGCTGCGATTGCTGCAACAGC 1500  
Db 1441 TTATTACCTCTTCTGTTGTTTATTATTAGGCCCGCTCTCTGCGCTGCGATTGCTGCAACAGC 1500  
Qy 1501 AGTTGGTTTCACTGGTGGTTTGTCTTGGCCGCTCGATTCCTGATTCACCGTGTGTTGGC 1560  
Db 1501 AGTTGGTTTCACTGGTGGTTTGTCTTGGCCGCTCGATTCCTGATTCACCGTGTGTTGGC 1560  
Qy 1561 GATTGCCGCGCATCACCAATGCTTCCAGGCTTAGCAATTTACCGCGGAATGTACGGCAC 1620  
Db 1561 GATTGCCGCGCATCACCAATGCTTCCAGGCTTAGCAATTTACCGCGGAATGTACGGCAC 1620  
Qy 1621 CTTGAATGATCAAACTACTCATGGTTTACCAACATTTGCGGTTGCTTTAGCCACTGCTTC 1680  
Db 1621 CTTGAATGATCAAACTACTCATGGTTTACCAACATTTGCGGTTGCTTTAGCCACTGCTTC 1680  
Qy 1681 ATCAGTTGCCGCTGGGCTGGTTTGGGTGAGTGGATTGCCCGCAGGCTAGCTGCTCCACC 1740  
Db 1681 ATCAGTTGCCGCTGGGCTGGTTTGGGTGAGTGGATTGCCCGCAGGCTAGCTGCTCCACC 1740  
Qy 1741 ACGCTTCAACCCATACCGTGCAITTTACCAAGGCGAATGAGTTCTCTTCCAGAGGAAGC 1800  
Db 1741 ACGCTTCAACCCATACCGTGCAITTTACCAAGGCGAATGAGTTCTCTTCCAGAGGAAGC 1800  
Qy 1801 TGAGCAGAAATCAGCGCGGCGAGAGAAAAGTCCAAAGACTAATCAAAAGATTCGGTAATAA 1860  
Db 1801 TGAGCAGAAATCAGCGCGGCGAGAGAAAAGTCCAAAGACTAATCAAAAGATTCGGTAATAA 1860  
Qy 1861 AAGGTAAAAATCAACCTGCTTAGCGCTCTTTGCTTAAATAGCGTAGAATATCGGGTCGA 1920  
Db 1861 AAGGTAAAAATCAACCTGCTTAGCGCTCTTTGCTTAAATAGCGTAGAATATCGGGTCGA 1920  
Qy 1921 TCGTTTTTAAACACTCAGGAGGATCTTCCGCGCAGGATTCAGGACACTCGTCCCAACC 1980  
Db 1921 TCGTTTTTAAACACTCAGGAGGATCTTCCGCGCAGGATTCAGGACACTCGTCCCAACC 1980  
Qy 1981 CAGAAATCCCTTCAACCTGTTTGAAGAGGAAACCGCAGCCGCTGCGCAGGATTTGGCCA 2040  
Db 1981 CAGAAATCCCTTCAACCTGTTTGAAGAGGAAACCGCAGCCGCTGCGCAGGATTTGGCCA 2040  
Qy 2041 CCTATTCTAAGGACTTCTTTCGACGGGCTCACTTTTGTATGTGATGCTCGGCTTGAACCTC 2100  
Db 2041 CCTATTCTAAGGACTTCTTTCGACGGGCTCACTTTTGTATGTGATGCTCGGCTTGAACCTC 2100  
Qy 2101 AAGGCGCTGCTTACCAAGGTCGCTTCTGAAACAGAGGAAGCTCAGCCAAAGAGGCTA 2160  
Db 2101 AAGGCGCTGCTTACCAAGGTCGCTTCTGAAACAGAGGAAGCTCAGCCAAAGAGGCTA 2160  
Qy 2161 CAAAGCGGACTCGTAAGGCAACGAGCTTAAGAGGCTGCTGCTAAGAAAACGACCAAGAGA 2220  
Db 2161 CAAAGCGGACTCGTAAGGCAACGAGCTTAAGAGGCTGCTGCTAAGAAAACGACCAAGAGA 2220





Best Local Similarity 100.0%; Pred. No. 0;				Matches 2817; Conservative 0; Mismatches 0; Indels 0; Gaps 0;			
QY	1	AATGAAATATCCCTCACCACCTGGGACATTTCAACACCGTTTCATTTCCAAACATCG	60				
Db	1	AATGAAATATCCCTCACCACCTGGGACATTTCAACACCGTTTCATTTCCAAACATCG	60				
QY	61	AGCCAAGGAAAGAAAGCCCTAAGCCCGTGTATTAAATGGAGACTCTTTGGAGACC	120				
Db	61	AGCCAAGGAAAGAAAGCCCTAAGCCCGTGTATTAAATGGAGACTCTTTGGAGACC	120				
QY	121	TCAAGCCAAAGAGGGGCAATTTATTAAGAAATAACCCCTTTGACCTGGTGTATTGAGC	180				
Db	121	TCAAGCCAAAGAGGGGCAATTTATTAAGAAATAACCCCTTTGACCTGGTGTATTGAGC	180				
QY	181	TGGAGAGAGACTTGAACTCTCAACCTACGCAATTAACAGTGGTTCGCTGCCAATTCGG	240				
Db	181	TGGAGAGAGACTTGAACTCTCAACCTACGCAATTAACAGTGGTTCGCTGCCAATTCGG	240				
QY	241	CCACTCCAGCACCGCAGATGCTGATGATCAACAACTACGAATACGTAATCTTAGCGTATGT	300				
Db	241	CCACTCCAGCACCGCAGATGCTGATGATCAACAACTACGAATACGTAATCTTAGCGTATGT	300				
QY	301	GTAATCAATATGGAATTCGGGGCTAGAGTATCTGGTGAAACCGTGCAATAACGACTGTG	360				
Db	301	GTAATCAATATGGAATTCGGGGCTAGAGTATCTGGTGAAACCGTGCAATAACGACTGTG	360				
QY	361	ATTGGACTCTTTTCTTTCGAAAATGTTTCCNGCGGATGTGAGTTTGGACCTTCG	420				
Db	361	ATTGGACTCTTTTCTTTCGAAAATGTTTCCAGCGGATGTGAGTTTGGACCTTCG	420				
QY	421	TGGCCGCAATTTCAACAGTTGACGCTGCAAAAGCCGACCTCGCCCATCGCCACTAGCCCC	480				
Db	421	TGGCCGCAATTTCAACAGTTGACGCTGCAAAAGCCGACCTCGCCCATCGCCACTAGCCCC	480				
QY	481	GATTGATCTCACTGACCAATAGTCAAGTGGCGGTGTGATGAAATTTGGCTGCGAGAAATGG	540				
Db	481	GATTGATCTCACTGACCAATAGTCAAGTGGCGGTGTGATGAAATTTGGCTGCGAGAAATGG	540				
QY	541	CGAATATTTGCTTTCTCAGGTACGCTCAACAGTGTATACCAAGTGCAGGTTCAGACGGT	600				
Db	541	CGAATATTTGCTTTCTCAGGTACGCTCAACAGTGTATACCAAGTGCAGGTTCAGACGGT	600				
QY	601	GACCTCTCGGTATGCGCTGATACATACGATGTGATATCAGTTTGAATACGATCACCAT	660				
Db	601	GACCTCTCGGTATGCGCTGATACATACGATGTGATATCAGTTTGAATACGATCACCAT	660				
QY	661	CTTCAACCAATCGGTGTGGAGAGAAATGCGCGTCAACCGTGTTCATGTTGTGGGCA	720				
Db	661	CTTCAACCAATCGGTGTGGAGAGAAATGCGCGTCAACCGTGTTCATGTTGTGGGCA	720				
QY	721	GTTGGACACCAATCTTCCAACTGTCTGAGTTGACCGTTTGTATCCGTTCCATTCAGGC	780				
Db	721	GTTGGACACCAATCTTCCAACTGTCTGAGTTGACCGTTTGTATCCGTTCCATTCAGGC	780				
QY	781	TGGTGTACCCCGCTGAGGTTGCGAGAAATCTGACAGGATTTGAGCAATCGCCTGC	840				
Db	781	TGGTGTACCCCGCTGAGGTTGCGAGAAATCTGACAGGATTTGAGCAATCGCCTGC	840				
QY	841	GTCTTAATGTTTCCCTGTGCTTGGCTGGGCAATGATGGGTGGCGCTGTGCTGT	900				
Db	841	GTCTTAATGTTTCCCTGTGCTTGGCTGGGCAATGATGGGTGGCGCTGTGCTGT	900				
QY	901	GCTGTTGGGTGGATGCGAGGTTTCCCTAATTTGCTTTTATACCGGTTCCAGATCAT	960				
Db	901	GCTGTTGGGTGGATGCGAGGTTTCCCTAATTTGCTTTTATACCGGTTCCAGATCAT	960				
QY	961	TGCCACAGCTCATTTTGGGAAAGAGGTTTGGCTACTTTCTTCCAAAATGTTGTGG	1020				
Db	961	TGCCACAGCTCATTTTGGGAAAGAGGTTTGGCTACTTTCTTCCAAAATGTTGTGG	1020				
QY	1021	TGGTTTTATGCCACGCTGCTGCATCGATGCTTATTTTGGCGTTGCAATTTGGTCT	1080				

Db	1021	TGGTTTTATGCCACGCTGCTGCATCGATGCTTATTTTGGCGTTGCAATTTGGTCT	1080
QY	1081	TGAGATCAAAACCGAGCCAGATCATCGCATCTGGAAATGTTGTGCTGTTGGCAGGTTTGAC	1140
Db	1081	TGAGATCAAAACCGAGCCAGATCATCGCATCTGGAAATGTTGTGCTGTTGGCAGGTTTGAC	1140
QY	1141	ACTTGTGCAATCTCTGACAGGACGGCATCACGGGCGCTCCGGTGACAGCAAGTGCAAGATT	1200
Db	1141	ACTTGTGCAATCTCTGACAGGACGGCATCACGGGCGCTCCGGTGACAGCAAGTGCAAGATT	1200
QY	1201	TTTTGAAACACTCTGTTTACCGGGCGCATTTGTTGCTGCGGTGGGTTGGGCAATTCAGCT	1260
Db	1201	TTTTGAAACACTCTGTTTACCGGGCGCATTTGTTGCTGCGGTGGGTTGGGCAATTCAGCT	1260
QY	1261	TTCTGAAATCTTGACATGTCATGTTGCCCTGCGCATGAGTCCGCTGCAGACCTAAATATTC	1320
Db	1261	TTCTGAAATCTTGACATGTCATGTTGCCCTGCGCATGAGTCCGCTGCAGACCTAAATATTC	1320
QY	1321	GTCTACATTCGCCCGCATTTATCGCTGTGGGTGTCACCGAGCGGCTTTGCGAGTGGGTG	1380
Db	1321	GTCTACATTCGCCCGCATTTATCGCTGTGGGTGTCACCGAGCGGCTTTGCGAGTGGGTG	1380
QY	1381	TTACCGGAGTGGTCTCGGTGATTTATTCGGGGCTTACTGGCTGATGGGTTCTGGCTT	1440
Db	1381	TTACCGGAGTGGTCTCGGTGATTTATTCGGGGCTTACTGGCTGATGGGTTCTGGCTT	1440
QY	1441	TTATTACCTCTTCTGTTTATTTAGGCCCGCTCTCTGCGCTGCATGTTGTTGTTGTC	1500
Db	1441	TTATTACCTCTCTGTTTATTTAGGCCCGCTCTCTGCGCTGCATGTTGTTGTTGTC	1500
QY	1501	AGTTGGTTTCACTGGTGGTGTGCTTGGCCGCTCGATTTCTTGATTCACCGTTGATTTGGC	1560
Db	1501	AGTTGGTTTCACTGGTGGTGTGCTTGGCCGCTCGATTTCTTGATTCACCGTTGATTTGGC	1560
QY	1561	GATTGCCGGCATCACCAATGCTTCCAGGCTTAGCAATTTTACCGGGAATGTAGCCAC	1620
Db	1561	GATTGCCGGCATCACCAATGCTTCCAGGCTTAGCAATTTTACCGGGAATGTAGCCAC	1620
QY	1621	CTTGAATGATCAAAACACTCATGGGTTTCAACAAATTCGGGTGCTTTAGCCACTGCTTC	1680
Db	1621	CTTGAATGATCAAAACACTCATGGGTTTCAACAAATTCGGGTGCTTTAGCCACTGCTTC	1680
QY	1681	ATCATCTTCCCGCTGGCTGGTGTGTTGGGTGAGTGGATGTCGCCAGGCTACGTCGCCACC	1740
Db	1681	ATCATCTTCCCGCTGGCTGGTGTGTTGGGTGAGTGGATGTCGCCAGGCTACGTCGCCACC	1740
QY	1741	ACGCTTCAACCCATACCGTGCATTTTACCAAGGCGAAATGAGTTCTCTTCCAGGAGAAAGC	1800
Db	1741	ACGCTTCAACCCATACCGTGCATTTTACCAAGGCGAAATGAGTTCTCTTCCAGGAGAAAGC	1800
QY	1801	TGACGAGAACTCAGCGCGGAGAGAAACGTCCTCAAGACTAATCAAGATTCGGTAAATAA	1860
Db	1801	TGACGAGAACTCAGCGCGGAGAGAAACGTCCTCAAGACTAATCAAGATTCGGTAAATAA	1860
QY	1861	AAGGTAAATAATCAACCTGCTTTAGCGCTTTTAAATAGCGTAGAATATCGGCTCGA	1920
Db	1861	AAGGTAAATAATCAACCTGCTTTAGCGCTTTTAAATAGCGTAGAATATCGGCTCGA	1920
QY	1921	TCGCTTTTAAACACTCAGGAGGATCTTTCGCGGCGCAAAATCAACGACACTCGTCCACCC	1980
Db	1921	TCGCTTTTAAACACTCAGGAGGATCTTTCGCGGCGCAAAATCAACGACACTCGTCCACCC	1980
QY	1981	CAGAACTCCCTTCACTGTTTGAAGGAAACCGCAGCGGTCGCCGAGGATTTGTGCA	2040
Db	1981	CAGAACTCCCTTCACTGTTTGAAGGAAACCGCAGCGGTCGCCGAGGATTTGTGCA	2040
QY	2041	CCTATTCTAAGGACTTCTTCGACCGCGCTCACTTTGATGTCATGCTCGGCGTTGAACCTC	2100
Db	2041	CCTATTCTAAGGACTTCTTCGACCGCGCTCACTTTGATGTCATGCTCGGCGTTGAACCTC	2100
QY	2101	AGGCGCTGCGTTACCAAGTGTCTGAAACGAGGAAAGCTCAGCCAAAGAGGCTA	2160
Db	2101	AGGCGCTGCGTTACCAAGTGTCTGAAACGAGGAAAGCTCAGCCAAAGAGGCTA	2160





Db	1021	TG	TTTTTA	ATGCGC	AGCTGC	CTCGCATCGA	TTGCTTTAT	TCTTTT	TGGCGTTG	CGAATTTGGTCT	1081
Qy	1081	TE	GATCAAA	CCGAGC	ACGATCAT	CGCATCTG	GAAATTTG	TGTGCTG	TGTGGCAG	GTTCAG	1140
Db	1081	TE	GATCAAA	CCGAGC	ACGATCAT	CGCATCTG	GAAATTTG	TGTGCTG	TGTGGCAG	GTTCAG	1140
Qy	1141	ACT	TGTGCA	ATCTCT	GCAGGACGG	CAACA	CGGGCGCT	CCGGTGA	CAGCAAGT	GCAAGT	1200
Db	1141	ACT	TGTGCA	ATCTCT	GCAGGACGG	CAACA	CGGGCGCT	CCGGTGA	CAGCAAGT	GCAAGT	1200
Qy	1201	TTTT	TGAACA	CACTCC	TGTTTAC	CGGGGCGCAT	TGTTCT	TGGCGT	TGGGCA	TTCAGCT	1260
Db	1201	TTTT	TGAACA	CACTCC	TGTTTAC	CGGGGCGCAT	TGTTCT	TGGCGT	TGGGCA	TTCAGCT	1260
Qy	1261	TTCT	TGAAAT	CTTTGC	ATGTCATG	TTGCTCC	TCCATCGAGT	TCCGCT	CGACCACT	TAATATTC	1320
Db	1261	TTCT	TGAAAT	CTTTGC	ATGTCATG	TTGCTCC	TCCATCGAGT	TCCGCT	CGACCACT	TAATATTC	1320
Qy	1321	GTCT	TACAT	TTCC	CCCGCAT	TATTCG	TGTGGCGT	CACCGC	AGCCCT	TGCAAGT	1380
Db	1321	GTCT	TACAT	TTCC	CCCGCAT	TATTCG	TGTGGCGT	CACCGC	AGCCCT	TGCAAGT	1380
Qy	1381	TTAC	CGCGAG	TGCTCT	CGGTGAT	TATTCG	GGGGCTTACT	TGCGCT	GATGGG	TTCGCTT	1440
Db	1381	TTAC	CGCGAG	TGCTCT	CGGTGAT	TATTCG	GGGGCTTACT	TGCGCT	GATGGG	TTCGCTT	1440
Qy	1441	TTAT	TACCTCT	TGTTGTTT	ATTTAG	GGCCCGTCTCT	CGCGCT	CGCAAT	TGTCG	CAACAGC	1500
Db	1441	TTAT	TACCTCT	TGTTGTTT	ATTTAG	GGCCCGTCTCT	CGCGCT	CGCAAT	TGTCG	CAACAGC	1500
Qy	1501	AGTT	TGGTTT	CACTGG	TGGTTT	GCTTGT	GCGCGT	CGAATCTT	GATCC	ACCGTTGAT	1560
Db	1501	AGTT	TGGTTT	CACTGG	TGGTTT	GCTTGT	GCGCGT	CGAATCTT	GATCC	ACCGTTGAT	1560
Qy	1561	GA	TTC	CGCGCAT	CAACA	TGCTTCCAG	GTCTAGCA	TTTAC	CGCGGA	TGTACGCCAC	1620
Db	1561	GA	TTC	CGCGCAT	CAACA	TGCTTCCAG	GTCTAGCA	TTTAC	CGCGGA	TGTACGCCAC	1620
Qy	1621	CTT	GAAATG	ATCAAA	CACTCAT	TGGGTTT	TACCAACA	ATTTG	CGGTTGCTT	TTAGC	1680
Db	1621	CTT	GAAATG	ATCAAA	CACTCAT	TGGGTTT	TACCAACA	ATTTG	CGGTTGCTT	TTAGC	1680
Qy	1681	ATCA	CTTGC	CGCTCG	CGTGGTTT	TGGTG	ATGTAAT	TGCGCGC	AGGCTAC	GTGTC	1740
Db	1681	ATCA	CTTGC	CGCTCG	CGTGGTTT	TGGTG	ATGTAAT	TGCGCGC	AGGCTAC	GTGTC	1740
Qy	1741	ACG	CTTCA	ACCCAT	ACG	TGCAATTA	CGAAGCG	AAATG	AGTTTCT	CTTCCAG	1800
Db	1741	ACG	CTTCA	ACCCAT	ACG	TGCAATTA	CGAAGCG	AAATG	AGTTTCT	CTTCCAG	1800
Qy	1801	TGAC	CAAGAT	CAAG	CGCGCAG	AGAAAC	GTGTC	CAAGACT	AAATCA	AAAGAT	1860
Db	1801	TGAC	CAAGAT	CAAG	CGCGCAG	AGAAAC	GTGTC	CAAGACT	AAATCA	AAAGAT	1860
Qy	1861	AAG	GTA	AAAAAT	CAAC	CTGCTTT	TAGCGCTCTTT	TGCTT	AAATAG	CGTGAAT	1920
Db	1861	AAG	GTA	AAAAAT	CAAC	CTGCTTT	TAGCGCTCTTT	TGCTT	AAATAG	CGTGAAT	1920
Qy	1921	TCG	CTTTT	TAAACA	CTAG	AGGAGAT	CTTTG	CGCGC	CAAAAT	CA	1980
Db	1921	TCG	CTTTT	TAAACA	CTAG	AGGAGAT	CTTTG	CGCGC	CAAAAT	CA	1980
Qy	1981	CAGA	ATCCCT	TTCAG	CTGTTGA	AGAGAA	ACCGC	CAGCGG	TGCCG	CAGAT	2040
Db	1981	CAGA	ATCCCT	TTCAG	CTGTTGA	AGAGAA	ACCGC	CAGCGG	TGCCG	CAGAT	2040
Qy	2041	CCT	ATTTCT	TAAGGA	CTTCTT	TGACGG	CGCTCACTTT	TGATGT	GCATGCT	CGCGGTT	2100
Db	2041	CCT	ATTTCT	TAAGGA	CTTCTT	TGACGG	CGCTCACTTT	TGATGT	GCATGCT	CGCGGTT	2100
Qy	2101	AGG	CCCTG	CGTTAC	CAAG	GTTCG	TTCTTG	AACA	CGAGGA	GTCTAG	2160
Db	2101	AGG	CCCTG	CGTTAC	CAAG	GTTCG	TTCTTG	AACA	CGAGGA	GTCTAG	2160

RESULT 5  
 US-09-951-535-1  
 ; Sequence 1, Application US/09951535  
 ; Publication No. US20030049802A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: ZIEGLER, PETRA  
 ; APPLICANT: EGGEING, LOTHAR  
 ; APPLICANT: SAHM, HERMANN  
 ; APPLICANT: THIERBACH, GEORG  
 ; TITLE OF INVENTION: NEW NUCLEOTIDE SEQUENCES CODING FOR THE THREE GENE AND  
 ; TITLE OF INVENTION: PROCESS FOR THE ENZYMATIC PRODUCTION OF L-THREONINE  
 ; TITLE OF INVENTION: USING CORYNEFORM BACTERIA  
 ; FILE REFERENCE: 21123/282415/MAS  
 ; CURRENT APPLICATION NUMBER: US/09/951.535  
 ; CURRENT FILING DATE: 2001-09-14  
 ; PRIOR APPLICATION NUMBER: 09/431,099  
 ; PRIOR FILING DATE: 1999-11-01  
 ; PRIOR APPLICATION NUMBER: DE 199 41 478.5  
 ; PRIOR FILING DATE: 1999-09-01  
 ; NUMBER OF SEQ ID NOS: 10  
 ; SOFTWARE: PatentIn Ver. 2.1  
 ; SEQ ID NO 1  
 ; LENGTH: 2817  
 ; TYPE: DNA  
 ; ORGANISM: Corynebacterium glutamicum  
 ; FEATURE:  
 ; NAME/KEY: CDS

; LOCATION: (398)..(1864)  
; OTHER INFORMATION: thrB-Gen  
US-09-951-535-1

Query Match 100.0%; Score 2817; DB 10; Length 2817;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 2817; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	AATGAATATCCCTCCACCACTGGGACATTCAAACACCGTTTCATTTCCAAACATCG	60
Db	1	AATGAATATCCCTCCACCACTGGGACATTCAAACACCGTTTCATTTCCAAACATCG	60
Qy	61	AGCAAAGGAAAGAAAGCCCTTAAGCCCGTGTATTAAATGGAGACTCTTTGGAGACC	120
Db	61	AGCAAGGAAAGAAAGCCCTTAAGCCCGTGTATTAAATGGAGACTCTTTGGAGACC	120
Qy	121	TCAGCCAAAGAGGGCATTTTCATTAAGAAATACCCCTTTGACCTGGTGTATTGAGC	180
Db	121	TCAGGCCAAAGAGGGCATTTTCATTAAGAAATACCCCTTTGACCTGGTGTATTGAGC	180
Qy	181	TGAGAGAGACTTGAACCTCAACCTAGCAATTAAGTGCGTTGCGTGCCTCAATTGCG	240
Db	181	TGAGAGAGACTTGAACCTCAACCTAGCAATTAAGTGCGTTGCGTGCCTCAATTGCG	240
Qy	241	CCATCCAGCACCGCAGATGCTGATGATCAACAACTAGCAATACGATATCTTAGCGTATGT	300
Db	241	CCATCCAGCACCGCAGATGCTGATGATCAACAACTAGCAATACGATATCTTAGCGTATGT	300
Qy	301	GTACATCAATTGGAAATTCGGGGCTAGAGTATCTGGTGAACCGTGATCAATAACGACCTGTG	360
Db	301	GTACATCAATTGGAAATTCGGGGCTAGAGTATCTGGTGAACCGTGATCAATAACGACCTGTG	360
Qy	361	ATTGACACTCTTTTCTTGCAAAATGTTTCCAGCGGATGTGATTTTGGAGCCCTTCG	420
Db	361	ATTGACACTCTTTTCTTGCAAAATGTTTCCAGCGGATGTGATTTTGGAGCCCTTCG	420
Qy	421	TGGCCGCAATTCACACAGTTGACGCTGCAAAAGCCGACCTCCGCCATCGCCACTAGCCCC	480
Db	421	TGGCCGCAATTCACACAGTTGACGCTGCAAAAGCCGACCTCCGCCATCGCCACTAGCCCC	480
Qy	481	GATTGATCTCACTGACCACTAGTCAAGTGGCCGGTGTGATGATTTGGCTGGAGAAATGG	540
Db	481	GATTGATCTCACTGACCACTAGTCAAGTGGCCGGTGTGATGATTTGGCTGGAGAAATGG	540
Qy	541	CGATATTTTGCTTCTTCAGGTACGTCAACACAGTATACCAAGTGCAAGTTCCAGCGGT	600
Db	541	CGATATTTTGCTTCTTCAGGTACGTCAACACAGTATACCAAGTGCAAGTTCCAGCGGT	600
Qy	601	GACCTCTCGGTATGGCCGTGATATACGATGTGGATATACGTTGAAATACGATCACCAT	660
Db	601	GACCTCTCGGTATGGCCGTGATATACGATGTGGATATACGTTGAAATACGATCACCAT	660
Qy	661	CTTACCAACATCCGTTGGAGAGAGATGCCGGTCAACGTTTTCATGTTGGGCAA	720
Db	661	CTTACCAACATCCGTTGGAGAGAGATGCCGGTCAACGTTTTCATGTTGGGCAA	720
Qy	721	GTTGGAACCAACTTCTCCAACTGTCTGAGTTTGAACCGTTTGATCCGTTCCATTGAGGC	780
Db	721	GTTGGAACCAACTTCTCCAACTGTCTGAGTTTGAACCGTTTGATCCGTTCCATTGAGGC	780
Qy	781	TGGTGTACCCCGCTCGAGTTGCCGAGAAATTTCTGGACGAGTTGGAGCAATCGCCTGC	840
Db	781	TGGTGTACCCCGCTCGAGTTGCCGAGAAATTTCTGGACGAGTTGGAGCAATCGCCTGC	840
Qy	841	GTCTTATGGTTTCCCTGTGCTTGGCTGGGCAATGATGGTGGCGCTGTGCTGT	900
Db	841	GTCTTATGGTTTCCCTGTGCTTGGCTGGGCAATGATGGTGGCGCTGTGCTGT	900
Qy	901	GCTGTTGGGTGGTGGATGGCAGGTTTCCCTAAATGCTTTTATACCGGTTCAAGTATCAT	960
Db	901	GCTGTTGGGTGGTGGATGGCAGGTTTCCCTAAATGCTTTTATACCGGTTCAAGTATCAT	960
Qy	961	TGCCACGACGTCAATTTTGGGAAAGAGGGTTTGGCTACTTCTTCCAAAATGTTGTGG	1020

Db	961	TGCCACGACGTCAATTTTGGGAAAGAGGGTTTGGCTACTTCTTCCAAAATGTTGTGG	1020
Qy	1021	TGGTTTTATTGCCACGCTGCCTGCATCGATTTGCTTATTCTTTGGCGTTGCAATTTGCTCT	1080
Db	1021	TGGTTTTATTGCCACGCTGCCTGCATCGATTTGCTTATTCTTTGGCGTTGCAATTTGCTCT	1080
Qy	1081	TGAGATCAAAACCGAGCCAGATCATCGCATCTGGAATTTGTTGCTGTGTGGCAGGTTTGAC	1140
Db	1081	TGAGATCAAAACCGAGCCAGATCATCGCATCTGGAATTTGTTGCTGTGTGGCAGGTTTGAC	1140
Qy	1141	ACTTGTGCACTCTCTGAGGACCGCATCACGGGCGCTCCGGTGACAGCAAGTGCAAGATT	1200
Db	1141	ACTTGTGCACTCTCTGAGGACCGCATCACGGGCGCTCCGGTGACAGCAAGTGCAAGATT	1200
Qy	1201	TTTTGAAACACTCTCTGTTTACCGCGGCATTTGTTGCTGGCGTGGGTTTGGGCATTCAGCT	1260
Db	1201	TTTTGAAACACTCTCTGTTTACCGCGGCATTTGTTGCTGGCGTGGGTTTGGGCATTCAGCT	1260
Qy	1261	TTCTGAAATCTTGCATGTCATGTTGCTGCGCATGGAGTCCGCTGCAGCACCTAATTATTTC	1320
Db	1261	TTCTGAAATCTTGCATGTCATGTTGCTGCGCATGGAGTCCGCTGCAGCACCTAATTATTTC	1320
Qy	1321	GTCTACATTCGCGGCATTTATCGTGGTGGCGTCAACGAGCGGCTTGCAGTGGGTTG	1380
Db	1321	GTCTACATTCGCGGCATTTATCGTGGTGGCGTCAACGAGCGGCTTGCAGTGGGTTG	1380
Qy	1381	TTACGCGGAGTGTCTCTCGTGATTTATGCGGGGCTTACTGCGCTGATGGGTTCTCGCTT	1440
Db	1381	TTACGCGGAGTGTCTCTCGTGATTTATGCGGGGCTTACTGCGCTGATGGGTTCTCGCTT	1440
Qy	1441	TTATTACCTCTTCGTTGTTTATTAGGCCCGGCTCTCGCGCTGCGATTGCTGCAACAGC	1500
Db	1441	TTATTACCTCTTCGTTGTTTATTAGGCCCGGCTCTCGCGCTGCGATTGCTGCAACAGC	1500
Qy	1501	AGTTGGTTTCACTGGTGGTTGCTTCCCGTTCGATTTGATTTCACCGTTCGATTGCTGGC	1560
Db	1501	AGTTGGTTTCACTGGTGGTTGCTTCCCGTTCGATTTGATTTCACCGTTCGATTGCTGGC	1560
Qy	1561	GATTGCGGATCACACCAATGCTTCCAGGTTCTAGCAATTTACCGCGGAATGTACGCCAC	1620
Db	1561	GATTGCGGATCACACCAATGCTTCCAGGTTCTAGCAATTTACCGCGGAATGTACGCCAC	1620
Qy	1621	CTTGAATGATCAACACTCATGGGTTTCAACCAATTTGCGGTTGCTTTAGCCACTGCTTC	1680
Db	1621	CTTGAATGATCAACACTCATGGGTTTCAACCAATTTGCGGTTGCTTTAGCCACTGCTTC	1680
Qy	1681	ATCAGTTGCGGCTGGCGTGGTTTGGTGAGTGGATTGCGCGCAGGCTACGTCGTCACAC	1740
Db	1681	ATCAGTTGCGGCTGGCGTGGTTTGGTGAGTGGATTGCGCGCAGGCTACGTCGTCACAC	1740
Qy	1741	ACGCTTCACCCATACCGTGCATTTTACAGCGGAATGAGTTCTCTTCCAGGAGGAAGC	1800
Db	1741	ACGCTTCACCCATACCGTGCATTTTACAGCGGAATGAGTTCTCTTCCAGGAGGAAGC	1800
Qy	1801	TGAGCAGAAATCAGCCCGCAGAGAAACGTCCTCAAGACTAATCAAGATTTCGCTAAATA	1860
Db	1801	TGAGCAGAAATCAGCCCGCAGAGAAACGTCCTCAAGACTAATCAAGATTTCGCTAAATA	1860
Qy	1861	AAGTTAAATCAACCTGCTTAGGCGTCTTTCGCTTAAATAGCGTAGAATATCGGGTCGA	1920
Db	1861	AAGTTAAATCAACCTGCTTAGGCGTCTTTCGCTTAAATAGCGTAGAATATCGGGTCGA	1920
Qy	1921	TGCGTTTTTAAACACTCAGGAGATCTTTCGCGGCGCAAAATCACGACACTCGTCCACCC	1980
Db	1921	TGCGTTTTTAAACACTCAGGAGATCTTTCGCGGCGCAAAATCACGACACTCGTCCACCC	1980
Qy	1981	CAGAAATCCCTTTCAGCTGTGTAAGAGGAAACCGCAGCGGCTGCCGAGGATTTGTGCA	2040
Db	1981	CAGAAATCCCTTTCAGCTGTGTAAGAGGAAACCGCAGCGGCTGCCGAGGATTTGTGCA	2040
Qy	2041	CCTATTCTAAGACTTCTTTCAGCGGCTCACTTTGATGTGATGCTCGGCTTGAACTTC	2100

2041 CCTATTCTAAGGACTTCTTCGACGCGTCACCTTTGATGTGCATGCTGGCGTTGAACCTC 2100  
QY AGGSCCTGCGTTACACCAAGTTCGCTTGAACACGAGGAGCTCAGCCAAAGAGGCTA 2160  
Db AGGSCCTGCGTTACACCAAGTTCGCTTGAACACGAGGAGCTCAGCCAAAGAGGCTA 2160  
QY CAAAGCGGACTCGTAAGGACACAGCTAAGAAAGGCTGCTGTGAAGAAACGACCAAGAGA 2220  
Db CAAAGCGGACTCGTAAGGACACAGCTAAGAAAGGCTGCTGTGAAGAAACGACCAAGAGA 2220  
QY CCCTAAGAAACTACTAAAGAACCCGCAAGAGAGACACAAAGAGTCTTAAGCGG 2280  
Db CCCTAAGAAACTACTAAAGAACCCGCAAGAGAGACACAAAGAGTCTTAAGCGG 2280  
QY GATCTTATATGATGATTCCTAATAGCTTTGAGTGTGCTTAACCGCTGCGCAGTGATA 2340  
Db GATCTTATATGATGATTCCTAATAGCTTTGAGTGTGCTTAACCGCTGCGCAGTGATA 2340  
QY TGACTGTCCACCCAGATGTTAGTATATGATCTCTCCCGAGCCCGGTGGCCTTGTACGG 2400  
Db TGACTGTCCACCCAGATGTTAGTATATGATCTCTCCCGAGCCCGGTGGCCTTGTACGG 2400  
QY GGCCTTCCCGCTTCTGGAACAAATCGTGTGATGTTGGTGGATGCGCTGGAACTGTAG 2460  
Db GGCCTTCCCGCTTCTGGAACAAATCGTGTGATGTTGGTGGATGCGCTGGAACTGTAG 2460  
QY ATGTTGCACCGCAACCACTTTCGAACAGATACGGGTGTTTTCGTCACCCCTGTCCTCA 2520  
Db ATGTTGCACCGCAACCACTTTCGAACAGATACGGGTGTTTTCGTCACCCCTGTCCTCA 2520  
QY CTGCAAGTGACTATGAAGGCTTCTACGAGGCTTTTCAAGCGCAACGCTGTGGCCTCTTT 2580  
Db CTGCAAGTGACTATGAAGGCTTCTACGAGGCTTTTCAAGCGCAACGCTGTGGCCTCTTT 2580  
QY TCACAGATTTGATTTACTCCCGTGTACACACGATGTTGGTGGATGCGCTTCGGGAAG 2640  
Db TCACAGATTTGATTTACTCCCGTGTACACACGATGTTGGTGGATGCGCTTCGGGAAG 2640  
QY TAAACCTCAAGTTCGCTGAAGCGTGAGCCAGTGGCGGCACACGGTGCCACTGTGGG 2700  
Db TAAACCTCAAGTTCGCTGAAGCGTGAGCCAGTGGCGGCACACGGTGCCACTGTGGG 2700  
QY TGACGAGTACTATCAGCTGTGTGCTTCTTGGCATTTTGGCGCAGATGGCCCTGATTGA 2760  
Db TGACGAGTACTATCAGCTGTGTGCTTCTTGGCATTTTGGCGCAGATGGCCCTGATTGA 2760  
QY AGATCGGTTTCTTCTCCACATTCCTTCCCTTCCCTTCCCTTCCCTTCCCTTCCCTTCCCT 2817  
Db AGATCGGTTTCTTCTCCACATTCCTTCCCTTCCCTTCCCTTCCCTTCCCTTCCCTTCCCT

RESULT 6  
US-10-224-574-9  
; Sequence 9, Application US/10224574  
; Publication No. US20040101837A1  
; GENERAL INFORMATION:  
; APPLICANT: Forschungszentrum Jlich GmbH; P. Ziegler, L. Eggeling, H. Sahm,  
; APPLICANT: P. Peters- Wendisch  
; TITLE OF INVENTION: Nukleotide sequences coding for proteins participating in the syn  
; TITLE OF INVENTION: L-Serin, improved process for the microbial manufacture of L-ser  
; TITLE OF INVENTION: Genetically modified microorganism suitable for the process.  
; FILE REFERENCE: FZJ-9912-PCT  
; CURRENT APPLICATION NUMBER: US/10/224,574  
; CURRENT FILING DATE: 2002-08-21  
; NUMBER OF SEQ ID NOS: 12  
; SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 9  
; LENGTH: 2817  
; TYPE: DNA  
; ORGANISM: C. glutamicum ATCC 14 752  
; FEATURE:  
; NAME/KEY: CDS  
; LOCATION: (398) .. (1867)

; OTHER INFORMATION: thr E (Threonin-exportcarrier)  
US-10-224-574-9  
Query Match 100.0%; Score 2817; DB 17; Length 2817;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 2817; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
QY 1 AATGAATAATATCCCTCACCACCTGCGGACATTCACCAACCGTTTCAATTTCCAAACATCG 60  
Db 1 AATGAATAATATCCCTCACCACCTGCGGACATTCACCAACCGTTTCAATTTCCAAACATCG 60  
QY 61 AGCCAGGGAAAAAGAGCCCTTAAGCCCGTGTATTAATATGAGACTCTTTTGAGAGACC 120  
Db 61 AGCCAGGGAAAAAGAGCCCTTAAGCCCGTGTATTAATATGAGACTCTTTTGAGAGACC 120  
QY 121 TCAAGCCAAAAAGGGGCAATTTTCAATTAAGAAAAATACCCCTTTTACCTGTGTATTGAGC 180  
Db 121 TCAAGCCAAAAAGGGGCAATTTTCAATTAAGAAAAATACCCCTTTTACCTGTGTATTGAGC 180  
QY 181 TGGAGAGAGAGACTTTGAACCTCTCAACCTACGATTCACAACTGCGCTGCGCTGCCAATTGCG 240  
Db 181 TGGAGAGAGAGACTTTGAACCTCTCAACCTACGATTCACAACTGCGCTGCGCTGCCAATTGCG 240  
QY 241 CCATCCAGCACCGCAGATGCTGATGATCAACAACTACGAATACGATCTTTAGCGTATGT 300  
Db 241 CCATCCAGCACCGCAGATGCTGATGATCAACAACTACGAATACGATCTTTAGCGTATGT 300  
QY 301 GTACATCACAAATGGAATTCGGGGCTAGAGTATCTGCTGAAACCGTGCAATAACGACCTGTG 360  
Db 301 GTACATCACAAATGGAATTCGGGGCTAGAGTATCTGCTGAAACCGTGCAATAACGACCTGTG 360  
QY 361 ATTGGACTCTTTTCCCTTGCAAAAATGTTTCCAGCGGATGTTGAGTTTTCGACACCTTCG 420  
Db 361 ATTGGACTCTTTTCCCTTGCAAAAATGTTTCCAGCGGATGTTGAGTTTTCGACACCTTCG 420  
QY 421 TGGCCGCAATTTCAACAGTGAACGCTGCAAAAGCGCACCTCCGCGCATCGCCATAGCCCC 480  
Db 421 TGGCCGCAATTTCAACAGTGAACGCTGCAAAAGCGCACCTCCGCGCATCGCCATAGCCCC 480  
QY 481 GATTGATCTCACTGACCATAGTCAAGTGGCGGTGATGAAATTTGGCTGCGAGAAATGG 540  
Db 481 GATTGATCTCACTGACCATAGTCAAGTGGCGGTGATGAAATTTGGCTGCGAGAAATGG 540  
QY 541 CGATATTTTGGCTTCTTTCAGGTACGTCACAAACAGTGTATCAAGGTGCAAGTTTCAGACGGT 600  
Db 541 CGATATTTTGGCTTCTTTCAGGTACGTCACAAACAGTGTATCAAGGTGCAAGTTTCAGACGGT 600  
QY 601 GACCTTGGCGTATGGCCTGTATATACGATGTGGATATACGTTGAAATACGATCAACAT 660  
Db 601 GACCTTGGCGTATGGCCTGTATATACGATGTGGATATACGTTGAAATACGATCAACAT 660  
QY 661 CTTTACCACATCGGTGTGGAGAGAGATGCGCGTCAACGTTTTCATGTTGGGCAA 720  
Db 661 CTTTACCACATCGGTGTGGAGAGAGATGCGCGTCAACGTTTTCATGTTGGGCAA 720  
QY 721 GTTGGACACCAACTTCTCCAAACTGTCTGAGGTTGACCGTTTGATCCGTTCCATTCAAGC 780  
Db 721 GTTGGACACCAACTTCTCCAAACTGTCTGAGGTTGACCGTTTGATCCGTTCCATTCAAGC 780  
QY 781 TGGTGTACCCCGCTGAGGTTGCGGAGAAATTTCTGAGAGAGTTGAGCAATCGCTTCG 840  
Db 781 TGGTGTACCCCGCTGAGGTTGCGGAGAAATTTCTGAGAGAGTTGAGCAATCGCTTCG 840  
QY 841 GTCTTATGTTTCCCTGTTGCGTGTGGTGGCAATGATGCGTGTGCTGTGCTGT 900  
Db 841 GTCTTATGTTTCCCTGTTGCGTGTGGTGGCAATGATGCGTGTGCTGTGCTGT 900  
QY 901 GCTGTTGGGTGGATGCGAGGTTTCCCTAAATGCTTTTATACCGGTTTCAAGATCAT 960  
Db 901 GCTGTTGGGTGGATGCGAGGTTTCCCTAAATGCTTTTATACCGGTTTCAAGATCAT 960  
QY 961 TGGCAGCGATCAATTTTGGGAAAGAGGGTTTGCCTTCTTCTTCCAAATGTTGTGG 1020  
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Db 961 TGCCAGCAGCTCATTTTTGGGAAAGAAAGGTTTGCTACTTTCTTCCAAAATGTTGTGG 1020  
Qy 1021 TGGTTTTATGCGACGCTGCCCTGCAATCGATTCGATTTCTTTTGGCGTTGCAATTTGGTCT 1080  
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Db 1081 TGAGATCAAAACCGAGCCAGATCATCGCATCTGGAATTTGTTGCTGTTGGCAGGTTTGAC 1140  
Qy 1141 ACTGTGCAATCTTGCAGGACGGATCAACGGGCGCTCCGGTGACAGCAAGTGACAGATT 1200  
Db 1141 ACTGTGCAATCTTGCAGGACGGATCAACGGGCGCTCCGGTGACAGCAAGTGACAGATT 1200  
Qy 1201 TTTTGAACACCTCTGTTTACCGGCGGCAATTTGCTGCGGTGGGTTTGGGCAATTCAGCT 1260  
Db 1201 TTTTGAACACCTCTGTTTACCGGCGGCAATTTGCTGCGGTGGGTTTGGGCAATTCAGCT 1260  
Qy 1261 TTCTGAATCTTGCAATGTCATGTTGCCCTGCCATGGAGTCCGCTGCAGCACCTTAATTTTC 1320  
Db 1261 TTCTGAATCTTGCAATGTCATGTTGCCCTGCCATGGAGTCCGCTGCAGCACCTTAATTTTC 1320  
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Db 1321 GTCTACATTCGCCCGCAATTCGCTGGTGGCGTCAACGCGACGCGCTTTCGCAATGTTG 1380  
Qy 1381 TTACGCGAGTGGTCTCTCGGTGATTTATTCGCGGCTTACTCGCTGATGGGTTCTGGGTT 1440  
Db 1381 TTACGCGAGTGGTCTCTCGGTGATTTATTCGCGGCTTACTCGCTGATGGGTTCTGGGTT 1440  
Qy 1441 TTATTACCTCTTCTGTTGTTATTTAGGCCCCGCTCTCTGCCCTCGCATTCGTCGCAACAGC 1500  
Db 1441 TTATTACCTCTTCTGTTGTTATTTAGGCCCCGCTCTCTGCCCTCGCATTCGTCGCAACAGC 1500  
Qy 1501 AGTTGGTTTCACTGCTGTTGCTTTCGCGGCTTACCGGCGGCTTTCGCAATGTTGTTG 1560  
Db 1501 AGTTGGTTTCACTGCTGTTGCTTTCGCGGCTTACCGGCGGCTTTCGCAATGTTGTTG 1560  
Qy 1561 GATTGCGGCAATCACCAATGCTTCCAGGCTAGCAATTTACCGGCAATGTCGCGCAC 1620  
Db 1561 GATTGCGGCAATCACCAATGCTTCCAGGCTAGCAATTTACCGGCAATGTCGCGCAC 1620  
Qy 1621 CTTGAATGATCAAAACACTCATGGGTTTCCAAACATTCGGGTTCTTTTAGCCACTGCTTC 1680  
Db 1621 CTTGAATGATCAAAACACTCATGGGTTTCCAAACATTCGGGTTCTTTTAGCCACTGCTTC 1680  
Qy 1681 ATCACTTCCGCTGGGTTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGG 1740  
Db 1681 ATCACTTCCGCTGGGTTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGG 1740  
Qy 1741 ACGTTTCAACCCATACCGTGCATTTTACCAAGCGAATGAGTTCTCTTCCAGGAGGAAGC 1800  
Db 1741 ACGTTTCAACCCATACCGTGCATTTTACCAAGCGAATGAGTTCTCTTCCAGGAGGAAGC 1800  
Qy 1801 TGACAGAAATCAGCGCGGAGAGAAACGCTCCAAAGACTAATCAAAAGATTCGGTAATAA 1860  
Db 1801 TGACAGAAATCAGCGCGGAGAGAAACGCTCCAAAGACTAATCAAAAGATTCGGTAATAA 1860  
Qy 1861 AAGTAAATCAACCTCTTGGGCTTTTGGGCTTTTGGGCTTTTGGGCTTTTGGGCTTTG 1920  
Db 1861 AAGTAAATCAACCTCTTGGGCTTTTGGGCTTTTGGGCTTTTGGGCTTTTGGGCTTTG 1920  
Qy 1921 TCGTTTTTAAACACTCAGGAGGATCTTTCGCGGCAAAATCAGGACACTCTGCTCCACCC 1980  
Db 1921 TCGTTTTTAAACACTCAGGAGGATCTTTCGCGGCAAAATCAGGACACTCTGCTCCACCC 1980  
Qy 1981 CAGAAATCCCTTTCAGCTGTTTGAAGAGAAACCGCAGCGGCTCCCGCAGGATTTGTC 2040  
Db 1981 CAGAAATCCCTTTCAGCTGTTTGAAGAGAAACCGCAGCGGCTCCCGCAGGATTTGTC 2040  
Qy 2041 CCTATTCTAAGGACTTCTTCGACGGGCTCACTTTGATGTCATGCTCGGCTTGAACCTC 2100  
Db 2041 CCTATTCTAAGGACTTCTTCGACGGGCTCACTTTGATGTCATGCTCGGCTTGAACCTC 2100

Qy 2101 AGGCGCTGGGTTACACCAAGTCCGTTCTGAAACACAGGAAGCTCAGCCAAAGAGCTA 2160  
Db 2101 AGGCGCTGGGTTACACCAAGTCCGTTCTGAAACACAGGAAGCTCAGCCAAAGAGCTA 2160  
Qy 2161 CAAAGCGGACTCGTTAAGGACCAAGCTAAGAGGCTGCTTAAGAAAACGACCAAGAGA 2220  
Db 2161 CAAAGCGGACTCGTTAAGGACCAAGCTAAGAGGCTGCTTAAGAAAACGACCAAGAGA 2220  
Qy 2221 CCCTAAGAAAACCTACTTAAAAAAGACCAACCGCAAGAGACCAAAAGAACTCTTAAGCCG 2280  
Db 2221 CCCTAAGAAAACCTACTTAAAAAAGACCAACCGCAAGAGACCAAAAGAACTCTTAAGCCG 2280  
Qy 2281 GATCTTATATGATGATTCOAATAGCTTTGATGTTGTTGTTAAACCGCTCTGCCAGTGATA 2340  
Db 2281 GATCTTATATGATGATTCOAATAGCTTTGATGTTGTTGTTAAACCGCTCTGCCAGTGATA 2340  
Qy 2341 TGACTGTCCACCCAGATGGTAGCTATAGCATCTCCCCAGCCCCGGTGGCTTGTACGG 2400  
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Qy 2401 GGCTTTCCCCGGTCTTGGAACAACATCGTGGATGTTGGGTGGATGGCTTGGAACTGTAG 2460  
Db 2401 GGCTTTCCCCGGTCTTGGAACAACATCGTGGATGTTGGGTGGATGGCTTGGAACTGTAG 2460  
Qy 2461 ATGTTGACCCGAAACCAATTCGAAACAGATACGGGTGTTTGTGCAACCTTGTGCTCA 2520  
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Qy 2521 CTGCAAGTACTATGAAGCTTCTACGAGGCTTTTCAAACGCAACGCTGTGSCCTCTTT 2580  
Db 2521 CTGCAAGTACTATGAAGCTTCTACGAGGCTTTTCAAACGCAACGCTGTGSCCTCTTT 2580  
Qy 2581 TCCACGATTTGATTTACTTCCGGTGTACAACCGATTTGGTGGCATGCGTTTCGGGAAG 2640  
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Qy 2641 TAAACCTCAAGTTTCGCTGAAGCCGTAAGCCAAAGTGGCGCACACGCTGTGTGGG 2700  
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Qy 2701 TGACGACTATCAGCTGTTGCTGTTCTTGGGATTTTGGCCAGATGCGCTTCAATTTGA 2760  
Db 2701 TGACGACTATCAGCTGTTGCTGTTCTTGGGATTTTGGCCAGATGCGCTTCAATTTGA 2760  
Qy 2761 AGATCGGTTTCTTCTCCACATTCCTTCCCTTCCCTTCCCTTCCCTTCCCTTCCCTTCCCT 2817  
Db 2761 AGATCGGTTTCTTCTCCACATTCCTTCCCTTCCCTTCCCTTCCCTTCCCTTCCCTTCCCT 2817

## RESULT 7

US-09-738-626-1  
; Sequence 1, Application US/09738626  
; Publication No. US20020197605A1  
; GENERAL INFORMATION:  
; APPLICANT: NAKAGAWA, SATOSHI  
; APPLICANT: MIZOGUCHI, HIROSHI  
; APPLICANT: ANDO, SEIKO  
; APPLICANT: HAYASHI, MIKIRO  
; APPLICANT: OCHIAI, KEIKO  
; APPLICANT: YOKOI, HARUHIKO  
; APPLICANT: TATEISHI, NAKO  
; APPLICANT: SENOH, AKIHIRO  
; APPLICANT: IKEDA, MASATO  
; APPLICANT: OZAKI, AKIO  
; TITLE OF INVENTION: NOVEL POLYNUCLEOTIDES  
; FILE REFERENCE: 249-125  
; CURRENT APPLICATION NUMBER: US/09/738,626  
; CURRENT FILING DATE: 2000-12-18  
; PRIOR APPLICATION NUMBER: JP 99/377484  
; PRIOR FILING DATE: 1999-12-16  
; PRIOR APPLICATION NUMBER: JP 00/159162  
; PRIOR FILING DATE: 2000-04-07

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/ PRIOR APPLICATION NUMBER: JP 00/280398
/ PRIOR FILING DATE: 2000-08-03
/ NUMBER OF SEQ ID NOS: 7059
/ SOFTWARE: Patent ver. 3.0
/ SEQ ID NO 1
/ LENGTH: 3309400
/ TYPE: DNA
/ ORGANISM: Corynebacterium glutamicum
US-09-738-626-1

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Query Match	98.8%;	Score 2783.4;	DB 9;	Length 3309400;
Best Local Similarity	99.3%;	Pred. No. 0;		
Matches 2796;	Conservative 0;	Mismatches 21;	Indels 0;	Gaps 0;
Qy	1	AATGAAATAATCCCTCACCACACTGGCGACATTCAAAACACGGTTTCATTTCCTCCAAACATCG	60	
Db	2790585	AATGAAATAATCCCTCACCACACTGGCGACATTCAAAACACGGTTTCATTTCCTCCAAACATCG	2790644	
Qy	61	AGCCAAAGGGAAAAGAAAGCCCTTAAGCCCGTGTATTAAATGAGACTCTTTGGAGACC	120	
Db	2790645	AGCCAAAGGGAAAAGAAAGCCCTTAAGCCCGTGTATTAAATGAGACTCTTTGGAGACC	2790704	
Qy	121	TCRAAGCCAAAAGGGGGCAITTTTCATTAAGAAAATACCCCTTTTGACCTGGTGTATTGAGC	180	
Db	2790705	TCRAAGCCAAAAGGGGGCAITTTTCATTAAGAAAATACCCCTTTGACCTGGTGTATTGAGC	2790764	
Qy	181	TGGAGAGAGACTTGAACCTCTCAACCTACGCATTACAAAGTCGGTTGCGCTGCCAATTGCG	240	
Db	2790765	TGGAGAGAGACTTGAACCTCTCAACCTACGCATTACAAAGTCGGTTGCGCTGCCAATTGCG	2790824	
Qy	241	CCACTCCAGCACCGCAGATGCTGATGATCAACRACTACGAATACGTATCTTAGCGTATGT	300	
Db	2790825	CCACTCCAGCACCGCAGATGCTGATGATCAACRACTACGAATACGTATCTTAGCGTATGT	2790884	
Qy	301	GTACATCACAAATGGAAATCGGGCTCAGATGATCTGGTGAACCGTGCATAAACGACCTGTG	360	
Db	2790885	GTACATCACAAATGGAAATCGGGCTCAGATGATCTGGTGAACCGTGCATAAACGACCTGTG	2790944	
Qy	361	ATTGGACTCTTTTTCCTTTCGAAAATGTTTTCACGCGGATGTTGAGTTTTCGGACCCCTTCG	420	
Db	2790945	ATTGGACTCTTTTTCCTTTCGAAAATGTTTTCACGCGGATGTTGAGTTTTCGGACCCCTTCG	2791004	
Qy	421	TGGCGCGAATTTCAACAGTTGACGCTGCAAAAGCCGCACCTCCGCGCACTCGCCACTAGCCCC	480	
Db	2791005	TGGCGCGAATTTCAACAGTTGACGCTGCAAAAGCCGCACCTCCGCGCACTCGCCACTAGCCCC	2791064	
Qy	481	GATTGATCTCATCTGACCATAGTCAAGTGGCGCGTGTGATGAAATTTGGCTCGGAGAAATGG	540	
Db	2791065	GATTGATCTCATCTGACCATAGTCAAGTGGCGCGTGTGATGAAATTTGGCTCGGAGAAATGG	2791124	
Qy	541	CGATATTTTTCGTTTCTTCAGTACGTACAAACAGTGATACCAAGGTGCAAGTTCGAGCGGT	600	
Db	2791125	CGATATTTTTCGTTTCTTCAGTACGTACAAACAGTGATACCAAGGTGCAAGTTCGAGCGGT	2791184	
Qy	601	GACCTCTCGGTATGGCCTGTACTATACGCATGTGGATATCACGCTTGAATACGATCACCAT	660	
Db	2791185	GACCTCTCGGTATGGCCTGTACTATACGCATGTGGATATCACGCTTGAATACGATCACCAT	2791244	
Qy	661	CTTTCACCAACATCGGTGTGAGAGGAAGATGCGCGTCAACGTGTTTCATGTTGTGGGCAA	720	
Db	2791245	CTTTCACCAACATCGGTGTGAGAGGAAGATGCGCGTCAACGTGTTTCATGTTGTGGGCAA	2791304	
Qy	721	GTTTGGACACCAACTCTTCGAAAATGCTGAGGTTGACCGTTTCGATCCGTTCCATTCAAGGC	780	
Db	2791305	GTTTGGACACCAACTCTTCGAAAATGCTGAGGTTGACCGTTTCGATCCGTTCCATTCAAGGC	2791364	
Qy	781	TGTTGCTTACCCCGCCTGAGGTTCGCGAGAAAATTCGGAAGAGTTGAGCAATTCGCCCTGC	840	
Db	2791365	TGTTGCGACCCCGCCTGAGGTTCGCGAGAAAATTCGGAAGAGTTGAGCAATTCGCCCTGC	2791424	
Qy	841	GTCTTATGTTTCCCTGTTCGGTTGCTTGGCTGGGCAATGATGGTGGCGCTGTGCTGT	900	
Db	2791425	GTCTTATGTTTCCCTGTTCGGTTGCTTGGCTGGGCAATGATGGTGGCGCTGTGCTGT	2791484	



Qy	1981	CAGAAATCCCTTTCACGCTGTTGAAGAGGAAACCGCAGCGCGTGC	2040
Db	2792565	CAGAAATCCCTTTCACGCTGTTGAAGAGGAAACCGCAGCGCGTGC	2792624
	2041	CCATATTCATAGGACTCTTTCGACGGCGCTCACTTTGATGTCATGCTCGGCGTGAACCTC	2100
Db	2792625	CCATATTCATAGGACTCTTTCGACGGCGCTCACTTTGATGTCATGCTCGGCGTGAACCTC	2792684
	2101	AGGCGCTGCGTTTACACCAAGGTCGCTTCTGAACACGAGGAAGCTCAGCCAAAGAGGCTA	2160
Db	2792685	AGGCGCTGCGTTTACACCAAGGTCGCTTCTGAACACGAGGAAGCTCAGCCAAAGAGGCTA	2792744
	2161	CAAAAGCGGACTCTGTAAGGACCAAGCTTAAGAGGCTGCTGCTAAGAAAACGACCAAGAGA	2220
Db	2792745	CAAAAGCGGACTCTGTAAGGACCAAGCTTAAGAGGCTGCTGCTAAGAAAACGACCAAGAGA	2792804
	2221	CCACTAAGAAAACCTACTTAAAGAACACCGCAAAAGAGACACACAAGAAAGTCTTAAAGCCG	2280
Db	2792805	CCACTAAGAAAACCTACTTAAAGAACACCGCAAAAGAGACACACAAGAAAGTCTTAAAGCCG	2792864
	2281	GATCTTATATGGAATGATTTCCAATAGCTTTGTGATGTTGTCTAAACCGTCTGCCAGTGGATA	2340
Db	2792865	GATCTTATATGGAATGATTTCCAATAGCTTTGTGATGTTGTCTAAACCGTCTGCCAGTGGATA	2792924
	2341	TGACTGTGCCACCGAGATGGTAGCTATTAGCATCTCCCCAGCCCGGTGGCTTGTACCG	2400
Db	2792925	TGACTGTGCCACCGAGATGGTAGCTATTAGCATCTCCCCAGCCCGGTGGCTTGTACCG	2792984
	2401	GGCTTTCCCGCGTTCTGGAAACAACATCGTGGATGTTGGGTGCGATGCGCTTGGAACTGTAG	2460
Db	2792985	GGCTTTCCCGCGTTCTGGAAACAACATCGTGGATGTTGGGTGCGATGCGCTTGGAACTGTAG	2793044
	2461	ATGTTGCACCCGGAACCAATTCGAACAGATACGGGTGTTTTGCTGTGCAACCTGTTGTCTCTCA	2520
Db	2793045	ATGTTGCACCCGGAACCAATTCGAACAGATACGGGTGTTTTGCTGTGCAACCTGTTGTCTCTCA	2793104
	2521	CTGCAAGTGACTATGAAAGGCTTCTACAGAGGCTTTTCAAACGCAACGCTGTGGCTCTTTT	2580
Db	2793105	CTGCAAGTGACTATGAAAGGCTTCTACAGAGGCTTTTCAAACGCAACGCTGTGGCTCTTTT	2793164
	2581	TCCAAGATTTGATTTGTTACTCCGGGTGTACAACACCGATTTGGTGGCATGCGTTTCGGGAAG	2640
Db	2793165	TCCAAGATTTGATTTGTTACTCCGGGTGTACAACACCGATTTGGTGGCATGCGTTTCGGGAAG	2793224
	2641	TAAACCTCAAGTTTCGCTGAAGCGGTGAGCCAGTGGCGGCACACAGGTGCCACTGTGTGGG	2700
Db	2793225	TAAACCTCAAGTTTCGCTGAAGCGGTGAGCCAGTGGCGGCACACAGGTGCCACTGTGTGGG	2793284
	2701	TGCAGGACTATACGACTGTGCTGGTCTCTGGCATTTTTCGGCCAGATGCGGCCCTGATTGTA	2760
Db	2793285	TGCAGGACTATACGACTGTGCTGGTCTCTGGCATTTTTCGGCCAGATGCGGCCCTGATTGTA	2793344
	2761	AGATCGGTGTTTCTCTCCAAATTCCTTCCCTTCCCTCTGATCTGTGTCGTCAGCTGC	2817
Db	2793345	AGATCGGTGTTTCTCTCCAAATTCCTTCCCTTCCCTCTGATCTGTGTCGTCAGCTGC	2793401

RESULT 8	
US-09-951-536-3	
; Sequence 3, Application US/09951536	
; Patent No. US20020107378A1	
; GENERAL INFORMATION:	
; APPLICANT: ZIEGLER, PETRA	
; APPLICANT: EGGELE, LOTHAR	
; APPLICANT: SAHM, HERMANN	
; APPLICANT: THIERSCH, GEORG	
; TITLE OF INVENTION: NEW NUCLEOTIDE SEQUENCES CODING FOR THE THREE GENE AND	
; TITLE OF INVENTION: PROCESS FOR THE ENZYMATIC PRODUCTION OF L-THREONINE	
; TITLE OF INVENTION: USING CORYNEFORM BACTERIA	
; FILE REFERENCE: 21123/282414/WAS	
; CURRENT APPLICATION NUMBER: US/09/951,536	
; CURRENT FILING DATE: 2001-09-14	
; PRIOR APPLICATION NUMBER: 09/431,099	

QY	756	ACCGTTTGATCCGTTCCATTGAGCTGGTGTACCCCGCCTGAGGTGGCCGAGAAAATTC	815
Db	638	ACCGTTTGATCCGTTCCATTGAGCTGGTGGACCCCGCCTGAGGTGGCCGAGAAAATTC	697
QY	816	TGGACGAGTTGGAGCAATCGCTGCTTATGTTTCCCTGTTGCGTGGCTTCGCTGGG	875
Db	698	TGGACGAGTTGGAGCAATCCCTGCTTATGTTTCCCTGTTGCGTGGCTTCGCTGGG	757
QY	876	CAATGATGGTGGCGCTGCTGCTGCTGTTGGTGGTGGATGCGAGGTTTCCCTAAATTG	935
Db	758	CAATGATGGTGGTCTGTTGCTGCTGTTGGTGGTGGATGCGAGGTTTCCCTAAATTG	817
QY	936	CTTTTATTACGCGTTACAGATCATTCGCACGAGCTCATTTTTCGGGAAAAGAGGTTTGC	995
Db	818	CTTTTATTACGCGTTACAGATCATTCGCACGAGCTCATTTTTCGGGAAAAGAGGTTTGC	877



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Qy 996 CTACTTTCTTCCAAAATGTTGTTGGTGTATTTATGGCACGCTCCTGCAATCGATTGCTT 1055
Db 996 CTACTTTCTTCCAAAATGTTGTTGGTGTATTTATGGCACGCTCCTGCAATCGATTGCTT 937
Qy 1056 ATTCTTTGGCGTTGCAATTTGGTCTTGAGATCAAAACCGAGCCAGATCATCGCATCTGGAA 1115
Db 998 ATTCTTTGGCGTTGCAATTTGGTCTTGAGATCAAAACCGAGCCAGATCATCGCATCTGGAA 997
Qy 1116 TTGTTGTGCTTTCGCGAGTTTGACACTTGTGCAATCTCTGACGAGCGGCATCACGGGCG 1175
Db 998 TTGTTGTGCTTTCGCGAGTTTGACACTTGTGCAATCTCTGACGAGCGGCATCACGGGCG 1057
Qy 1176 CTCGGGTGACAGCAAGTGACGATTTTTTTGAAACACATCTGTTTACGGGCGGCATTTGTTG 1235
Db 1058 CTCGGGTGACAGCAAGTGACGATTTTTTTGAAACACATCTGTTTACGGGCGGCATTTGTTG 1117
Qy 1236 CTGCGGTGGGTTTGGGCATTTGAGCTTTCTGAAATCTTGCAATCTGATGTTGCTGCGCATGG 1295
Db 1118 CTGCGGTGGGTTTGGGCATTTGAGCTTTCTGAAATCTTGCAATCTGATGTTGCTGCGCATGG 1177
Qy 1296 AGTCGGCTGACGACACCTAATTTATTCGTTCTCATTTGCGCCGCAATTCGCTGGTGGCGTCA 1355
Db 1178 AGTCGGCTGACGACACCTAATTTATTCGTTCTCATTTGCGCCGCAATTCGCTGGTGGCGTCA 1237
Qy 1356 CCGCAGCGGCTTCGCGAGTGGTGTGTTACGCGGAGTGGTCTCGGTGATTTATTCGCGGCG 1415
Db 1238 CCGCAGCGGCTTCGCGAGTGGTGTGTTACGCGGAGTGGTCTCGGTGATTTATTCGCGGCG 1297
Qy 1416 TTACTGCGCTGATGGGTTCTGCGTTTATTTACCTCTTCTGTTTATTTAGGCCCCGCTCT 1475
Db 1298 TTACTGCGCTGATGGGTTCTGCGTTTATTTACCTCTTCTGTTTATTTAGGCCCCGCTCT 1357
Qy 1476 CTGCGGCTGCGATTTGTCGAACAGAGTTGGTGTTCACCTGGTGGTGTGCTTCCCGCGTGGAT 1535
Db 1358 CTGCGGCTGCGATTTGTCGAACAGAGTTGGTGTTCACCTGGTGGTGTGCTTCCCGCGTGGAT 1417
Qy 1536 TCTTGATTTCCACCGTTGATTTGTCGCAATGTCGCGCATCACCAATGCTTCCAGGTCTAG 1595
Db 1418 TCTTGATTTCCACCGTTGATTTGTCGCAATGTCGCGCATCACCAATGCTTCCAGGTCTAG 1477
Qy 1596 CAATTTACCGGGAATGTACGCCACCTTGATGATCAAAACACTCATGGTTTACCAACA 1655
Db 1478 CAATTTACCGGGAATGTACGCCACCTTGATGATCAAAACACTCATGGTTTACCAACA 1537
Qy 1656 TTGGGTTGCTTTAGCCACTGCTTTCATCCTGCTGCGCTGGGCTGGTGTGGGTGAGTGA 1715
Db 1538 TTGGGTTGCTTTAGCCACTGCTTTCATCCTGCTGCGCTGGGCTGGTGTGGGTGAGTGA 1597
Qy 1716 TTGCCCGCAGCTACGTCGTCCACCAACGCTTCAACCCATACCGTGCAATTTACCAAGCGA 1775
Db 1598 TTGCCCGCAGCTACGTCGTCCACCAACGCTTCAACCCATACCGTGCAATTTACCAAGCGA 1657
Qy 1776 ATGAGTTCTCTTCCAGGGAAGCTGAGCAGATACAGCGCGGCGAGAAAAGCTCCAA 1835
Db 1658 ATGAGTTCTCTTCCAGGGAAGCTGAGCAGATACAGCGCGGCGAGAAAAGCTCCAA 1717
Qy 1836 AGACTAATCAAGAGTTCGGTAATAAAGGTAAAAATCAACTGCTTAGGGGCTCTTTGCT 1895
Db 1718 AGACTAATCAAGAGTTCGGTAATAAAGGTAAAAATCAACTGCTTAGGGGCTCTTTGCT 1777
Qy 1896 TAAATAGCGTAGAATATCGGTCGATCGCTTTTAAACACTCAGGAGGATCCTTGCCGCGCC 1955
Db 1778 TAAATAGCGTAGAATATCGGTCGATCGCTTTTAAACACTCAGGAGGATCCTTGCCGCGCC 1837
Qy 1956 AAAATACGGGACACTCGTCCACCGGAGATCCCTTCAACGCTGTGTGAAGAGGAACCGCA 2015
Db 1838 AAAATACGGGACACTCGTCCACCGGAGATCCCTTCAACGCTGTGTGAAGAGGAACCGCA 1897
Qy 2016 GCGGGT 2022
Db 1898 GCGGGG 1904
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RESULT 9
US-09-963-521-3
; Sequence 3, Application US/09963521
; Patent No. US20020146781A1
; GENERAL INFORMATION:
; APPLICANT: ZIEGLER, PETRA
; APPLICANT: EGGELING, LOTHAR
; APPLICANT: SAHM, HERMANN
; TITLE OF INVENTION: NEW NUCLEOTIDE SEQUENCES CODING FOR THE THREE GENE
; TITLE OF INVENTION: AND PROCESS FOR THE ENZYMATIC PRODUCTION OF
; TITLE OF INVENTION: L-THREONINE USING CORYNEFORM BACTERIA
; FILE REFERENCE: 21123/282413/MAS
; CURRENT APPLICATION NUMBER: US/09/963.521
; PRIOR FILING DATE: 2001-09-27
; PRIOR APPLICATION NUMBER: 09/431,099
; PRIOR FILING DATE: 1999-11-01
; PRIOR APPLICATION NUMBER: DE 199 41 478.5
; PRIOR FILING DATE: 1999-09-01
; NUMBER OF SEQ ID NOS: 10
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 3
; LENGTH: 1909
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (280)..(1746)
; OTHER INFORMATION: thrE-Gen
US-09-963-521-3
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Query Match 65.2%; Score 1836.6; DB 9; Length 1909;
Best Local Similarity 99.0%; Pred. No. 0;
Matches 1848; Conservative 0; Mismatches 19; Indels 0; Gaps 0;

Qy 156 CCCCTTTGACCTGGTGTATTTAGCTCGAGAGAGCTGAACTCTCAACTAGCGCATTA 215
Db 38 CCCCTTTGACCTGGTGTATTTAGCTCGAGAGAGCTTGAACCTCTCAACTAGCGCATTA 97
Qy 216 CAAGTGGCTGGCTGCGCAATTTGCGCACTCCAGCAGCGAGATGCTGATGATCAACAAC 275
Db 98 CAAGTGGCTGGCTGCGCAATTTGCGCACTCCAGCAGCGAGATGCTGATGATCAACAAC 157
Qy 276 TAGGAATACGATATCTTAGCGTATGTGTATCATCAATGGAATTCGGGGCTAGATATCTG 335
Db 158 TAGGAATACGATATCTTAGCGTATGTGTATCATCAATGGAATTCGGGGCTAGATATCTG 217
Qy 336 GTGAAACGTCATAAAGCACTGTGATTTGAGTCTTTTCTTCTGCAAAATGTTTCCAGC 395
Db 218 GTGAAACGTCATAAAGCACTGTGATTTGAGTCTTTTCTTCTGCAAAATGTTTCCAGC 277
Qy 396 GGATGTTGAGTTTGGCACCCCTTCTGCGCGCATTTTCAACAGTTGACGCTGCAAAAGCGG 455
Db 278 GGATGTTGAGTTTGGCACCCCTTCTGCGCGCATTTTCAACAGTTGACGCTGCAAAAGCGG 337
Qy 456 CACCTCCGCCATCGCCACTAGCCCCGATGATCTCATCTGACCATATGTAAGTGCCCGGTG 515
Db 338 CACCTCCGCCATCGCCACTAGCCCCGATGATCTCATCTGACCATATGTAAGTGCCCGGTG 397
Qy 516 TGATGAATTTGGCTGCGAGAAATTTGGCGATATTTTGGCTTTCTTCTGAGTACGTAACAGTG 575
Db 398 TGATGAATTTGGCTGCGAGAAATTTGGCGATATTTTGGCTTTCTTCTGAGTACGTAACAGTG 457
Qy 576 ATACCAAGGTGCAAGTTTCGAGCGGTGACCTCTGCGTATGGCTCTACTATACGATGTGG 635
Db 458 ACACCAAGGTGCAAGTTTCGAGCGGTGACCTCTGCGTATGGCTCTACTATACGATGTGG 517
Qy 636 ATATCAGGTTGAATACGATCAACCATCTTTCACCAATCGGTGTGAGAGGAAGATGCCGG 695
Db 518 ATATCAGGTTGAATACGATCAACCATCTTTCACCAATCGGTGTGAGAGGAAGATGCCGG 577
Qy 696 TCAACGTTTTCATGTTGTGGGCAAGTTGGACCAACTTCTCCAAACTGCTCAGGTTG 755
Db 578 TCAACGTTTTCATGTTGTGGGCAAGTTGGACCAACTTCTCCAAACTGCTCAGGTTG 637
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QY 756 ACCGTTTGATCGTTCCATTTCAGGCTGGTGCTACCCGCGCTGAGGTTGCCGAGAAATTC 815  
Db 638 ACCGTTTGATCGTTCCATTTCAGGCTGGTGCGACCCGCGCTGAGGTTGCCGAGAAATTC 697  
QY 816 TGGACGAGTTGAGCAATCGCGTGGGCTCTTATGGTTTCCCTGTGCTGGCTGGG 875  
Db 698 TGGACGAGTTGAGCAATCGCGTGGGCTCTTATGGTTTCCCTGTGCTGGCTGGG 757  
QY 876 CAATGATGGGTGGCGCTGTGCTGTGCTGTGGGTGGGTGGATGGCAGGTTTCCCTTAATTG 935  
Db 758 CAATGATGGGTGGCTGTGCTGTGCTGTGGGTGGGTGGATGGCAGGTTTCCCTTAATTG 817  
QY 936 CTTTATTATACCGGTTTCAGATCATTTGCCACGAGCTCAATTTTGGGAAAGAGGTTTGC 995  
Db 818 CTTTATTATACCGGTTTCAGATCATTTGCCACGAGCTCAATTTTGGGAAAGAGGTTTGC 877  
QY 996 CTACTTTCTTCCAAATGTGTGGTGGTTTATTGCCACGCTGCTGCATCGATTGCTT 1055  
Db 878 CTACTTTCTTCCAAATGTGTGGTGGTTTATTGCCACGCTGCTGCATCGATTGCTT 937  
QY 1056 ATTCTTTGGCGTTGCAATTTGGTCTTGAGATCAAAACCGAGCGAGTATCGATCTGGAA 1115  
Db 938 ATTCTTTGGCGTTGCAATTTGGTCTTGAGATCAAAACCGAGCGAGTATCGATCTGGAA 997  
QY 1116 TTGTTGTGCTGTGGCAGGTTTGACATTTGTGCAATCTCTCAGACGGCATCACGGCG 1175  
Db 998 TTGTTGTGCTGTGGCAGGTTTGACATCTGTGCAATCTCTCAGACGGCATCACGGCG 1057  
QY 1176 CTCGGTGCACAGCAAGTGCAGATTTTGTGAAACACTCTCTGTTTACCGCGCGCATTTGTTG 1235  
Db 1058 CTCGGTGCACAGCAAGTGCAGATTTTGTGAAACACTCTCTGTTTACCGCGCGCATTTGTTG 1117  
QY 1236 CTGGCGTGGTTTGGGCAATTCAGCTTTCTGAAATCTTGCAATCTCATGTGCTGCCATGG 1295  
Db 1118 CTGGCGTGGTTTGGGCAATTCAGCTTTCTGAAATCTTGCAATCTCATGTGCTGCCATGG 1177  
QY 1296 AGTCGGCTGCAGCACTAATTTATTCGCTACATTCGCCCGCATTTATCGCTGGCGCTCA 1355  
Db 1178 AGTCGGCTGCAGCACTAATTTATTCGCTACATTCGCCCGCATTTATCGCTGGCGCTCA 1237  
QY 1356 CCGCAGCGGCTTCGCGAGTGGTTTGTACGCGAGTGGTCTCGGTGATTTATTCGCGGCG 1415  
Db 1238 CCGCAGCGGCTTCGCGAGTGGTTTGTACGCGAGTGGTCTCGGTGATTTATTCGCGGCG 1297  
QY 1416 TTACTGCGCTGATGGGTTCTGGGTTTATTTATACCTCTGTTGTTTATTTAGGCCCGCTCT 1475  
Db 1298 TTACTGCGCTGATGGGTTCTGGGTTTATTTATACCTCTTCTGTTGTTTATTTAGGCCCGCTCT 1357  
QY 1476 CTGCCGCTGCGATTGCTGCAACAGCAGTTGGTTTCACTGGTGGTTTCTGTTGCCCGTGCAT 1535  
Db 1358 CTGCCGCTGCGATTGCTGCAACAGCAGTTGGTTTCACTGGTGGTTTCTGTTGCCCGTGCAT 1417  
QY 1536 TCTTGATTCCACCGTTGATGTGGCGATTCGCCGATCAACCAATGCTTCCAGGCTAG 1595  
Db 1418 TCTTGATTCCACCGTTGATGTGGCGATTCGCCGATCAACCAATGCTTCCAGGCTAG 1477  
QY 1596 CAATTTACCGCGGAATGTACGCCACCTTGAATGATCAAACTCATGGGTTTCAACCA 1655  
Db 1478 CAATTTACCGCGGAATGTACGCCACCTTGAATGATCAAACTCATGGGTTTCAACCA 1537  
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Db 1658 ATGAGTTCTCTCCAGGAGGAGCTGAGCAGATCAGCGCGGCGCAGAGAAACGTTCAA 1717

QY 1836 AGACTAATCAAGATTTCGGTAATAAAAGGTAAATAAATCAACCTGCTTAGGGCTCTTTGCT 1895  
Db 1718 AGACTAATCAAGATTTCGGTAATAAAAGGTAAATAAATCAACCTGCTTAGGGCTCTTTGCT 1777  
QY 1896 TAAATAGCGTAGAATATCGGGTCGATCGCTTTTAAACACACTCAGGAGGATCTTCCCGGCG 1955  
Db 1778 TAAATAGCGTAGAATATCGGGTCGATCGCTTTTAAACACACTCAGGAGGATCTTCCCGGCG 1837  
QY 1956 AAATACAGGACACTCGTCCACCCAGAAATCCCTTCACTGCTGTGAAGAGAAACCGCA 2015  
Db 1838 AAATACAGGACACTCGTCCACCCAGAAATCCCTTCACTGCTGTGAAGAGAAACCGCA 1897  
QY 2016 GCCGGTG 2022  
Db 1898 GCCGGG 1904

RESULT 10  
US-09-834-721-3  
; Sequence 3, Application US/09834721  
; Patent No. US20020155551A1  
; GENERAL INFORMATION:  
; APPLICANT: RIEPING, MECHTHILD  
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF L-THREONINE  
; FILE REFERENCE: 21123/280169/MAS  
; CURRENT APPLICATION NUMBER: US/09/834, 721  
; PRIOR FILING DATE: 2001-04-16  
; PRIOR APPLICATION NUMBER: DE 100 26 494.8  
; PRIOR FILING DATE: 2000-05-27  
; PRIOR APPLICATION NUMBER: DE 101 02 823.7  
; PRIOR FILING DATE: 2001-01-23  
; NUMBER OF SEQ ID NOS: 12  
; SOFTWARE: Patentin Ver. 2.1  
; SEQ ID NO 3  
; LENGTH: 1909  
; TYPE: DNA  
; ORGANISM: Corynebacterium glutamicum  
; FEATURE:  
; OTHER INFORMATION: ATCC13032  
; NAME/KEY: CDS  
; LOCATION: (280)..(1746)  
; OTHER INFORMATION: thrE gene  
US-09-834-721-3

Query Match 65.2%; Score 1836.6; DB 9; Length 1909;  
Best Local Similarity 99.0%; Pred. No. 0;  
Matches 1848; Conservative 0; Mismatches 19; Indels 0; Gaps 0;

QY 156 CCCTTTGACCTGGTGTATTGAGCTGGAGAGAGACTTTGAACTCTCAACCTACGCATT 215  
Db 38 CCCTTTGACCTGGTGTATTGAGCTGGAGAGAGACTTTGAACTCTCAACCTACGCATT 97  
QY 216 CAAGTCGTTGCGTGCCTCAATTCGCCACTCCAGCAACCGCAGATGCTGATGATCAACAAC 275  
Db 98 CAAGTCGTTGCGTGCCTCAATTCGCCACTCCAGCAACCGCAGATGCTGATGATCAACAAC 157  
QY 276 TAGGATAGTATCTTAGCGTATGTGTATCATCAATGGAATTCGGGGCTAGAGTATCTG 335  
Db 158 TAGGATAGTATCTTAGCGTATGTGTATCATCAATGGAATTCGGGGCTAGAGTATCTG 217  
QY 336 GTGAACCGGTGCATAAACGACCTGTGATGGAATCTTTTTCTTTGCAAAATGTTTTCCAGC 395  
Db 218 GTGAACCGGTGCATAAACGACCTGTGATGGAATCTTTTTCTTTGCAAAATGTTTTCCAGC 277  
QY 396 GGATGTGAGTTTTCGACCTTCGCTGGCGCATTTCAACAGTTGACGCTGCAGGCGG 455  
Db 278 GGATGTGAGTTTTCGACCTTCGCTGGCGCATTTCAACAGTTGACGCTGCAGGCGG 337  
QY 456 CACCTCCGCGCATCGCACTAGCCCGATTTGATCTCACTGACCATAGTCAAGTGGCGGTG 515  
Db 338 CACCTCCGCGCATCGCACTAGCCCGATTTGATCTCACTGACCATAGTCAAGTGGCGGTG 397  
QY 516 TGATGAATTTGGCTGCGAGAAATGGCGATATTTTGTCTTTCTTCAGGTACGTCAACAGTG 575





US-09-951-535-3

Query Match				65.2%;	Score 1836.6;	DB 10;	Length 1909;				
Best Local Similarity				99.0%;	Pred. No. 0;						
Matches 1848;				Conservative 0;	Mismatches 19;	Indels 0;	Gaps 0;				
QY	156	CCCCTTTGACCTGGTGTATTGAGCTGGAGAAGAGACTTGAACCTCTCAACCTACGCATTA	215								
DB	38	CCCCTTTGACCTGGTGTATTGAGCTGGAGAAGAGACTTGAACCTCTCAACCTACGCATTA	97								
QY	216	CAAGTGGCTTGGCTGCGCAATTTGGCCNCTCCAGCACCGCAGATGCTGATGATCAACAAC	275								
DB	98	CAAGTGGCTTGGCTGCGCAATTTGGCCNCTCCAGCACCGCAGATGCTGATGATCAACAAC	157								
QY	276	TACGAATACGATCTCTTAGCGTATGTGTACATCAAAATGGAAATTCGGGGCTAGAGTATCTG	335								
DB	158	TACGAATACGATCTCTTAGCGTATGTGTACATCAAAATGGAAATTCGGGGCTAGAGTATCTG	217								
QY	336	GTGAACCGTGCATAAAGCAGCTGTGATTTGGACTCTTTTCCCTTGCAAAATGTTTTCCAGC	395								
DB	218	GTGAACCGTGCATAAAGCAGCTGTGATTTGGACTCTTTTCCCTTGCAAAATGTTTTCCAGC	277								
QY	396	GGATGTTGAGTTTGGCAGCCCTTCGTGGCCGCAATTTCAAAGTTGACGCTGCAGAAAGCG	455								
DB	278	GGATGTTGAGTTTGGCAGCCCTTCGTGGCCGCAATTTCAAAGTTGACGCTGCAGAAAGCG	337								
QY	456	CACCTCCGCCATCGCCACTAGCCCGGATTTGATCTCACTGACCATAGTCAAGTGGCCGGTG	515								
DB	338	CACCTCCGCCATCGCCACTAGCCCGGATTTGATCTCACTGACCATAGTCAAGTGGCCGGTG	397								
QY	516	TGATGAATTTGGCTGCGAGAAATTTGGCGATATTTTGTCTTTCTTCAGGTACGTCACCAAGTG	575								
DB	398	TGATGAATTTGGCTGCGAGAAATTTGGCGATATTTTGTCTTTCTTCAGGTACGTCACCAAGTG	457								
QY	576	ATACCAAGTGCAGTTTCGAGCGGTGACCTCTGGGTATGGCCTGTACTATACGATGTGG	635								
DB	458	ACACCAAGGTACAAGTTTCGAGCAGTGACCTCTGGGTACGGTTTGTACTACGCAAGTGG	517								
QY	636	ATATCACGTTTGAATACGATCACCATCTTCAACCAACATCGGTGTGGAGGAAGATGCGCG	695								
DB	518	ATATCACGTTTGAATACGATCACCATCTTCAACCAACATCGGTGTGGAGGAAGATGCGCG	577								
QY	696	TCAACGTTTTCATGTTTGGGCAAGTTTGGACACCAACTTCTCCAAACTGTCTGAGGTG	755								
DB	578	TCAACGTTTTCATGTTTGTAGGCAAGTTGGACACCAACTTCTCCAAACTGTCTGAGGTG	637								
QY	756	ACCGTTTGATCCGTTCCATTGAGCGCTGTGTACTACCCCGCTGAGGTTGCCGAGAAAATTC	815								
DB	638	ACCGTTTGATCCGTTCCATTGAGCGCTGTGTGTGGTGGGACCCCGCTGAGGTTGCCGAGAAAATTC	697								
QY	816	TGGAACGAGTTGGAGCAATTCGCTGCTTATGTTTCCCTGTTGCGTTGCTTGGCTGGG	875								
DB	698	TGGAACGAGTTGGAGCAATTCGCTGCTTATGTTTCCCTGTTGCGTTGCTTGGCTGGG	757								
QY	876	CAATGATGGGTGGCGCTGTGTGCTGTGTGGGTGGTGAATGACGATTTCCCTAATTG	935								
DB	758	CAATGATGGGTGGGTGCTGTGTGCTGTGTGGGTGGTGAATGACGATTTCCCTAATTG	817								
QY	936	CTTTTATTTACCGCGTTTCAAGATCATTTGCCACGAGTCATTTTGGGAAAGAGGGTTTGC	995								
DB	818	CTTTTATTTACCGCGTTTCAAGATCATTTGCCACGAGTCATTTTGGGAAAGAGGGTTTGC	877								
QY	996	CTACTTTCTTCCAAATGTTGTTGGTGGTATTTATTTGCCAGCTGCTGCATCGATTGCTT	1055								
DB	878	CTACTTTCTTCCAAATGTTGTTGGTGGTATTTATTTGCCACGCTGCCCTGCATCGATTGCTT	937								
QY	1056	ATTCTTTTGGCGTTTGCATTTTGGTCTTGAGATCAAAACCGAGCCAGATCATCGCATCTGAA	1115								
DB	938	ATTCTTTTGGCGTTTGCATTTTGGTCTTGAGATCAAAACCGAGCCAGATCATCGCATCTGAA	997								
QY	1116	TGTGTGTGCTTGTGGCAGGTTTGAACCTTTGTGCAATCTCTGCAGGACGGCATACCGGCG	1175								
DB	998	TGTGTGTGCTTGTGGCAGGTTTGAACCTCGTGCATCTCTGCAGGACGGCATACCGGCG	1057								

RESULT 13

US-10-224-574-11

; Sequence 11, Application US/10224574

; Publication No. US20040101837A1

; GENERAL INFORMATION:

; APPLICANT: Forschungszentrum Jlich GmbH; P. Ziegler, L. Eggeling, H. Sahn,

; APPLICANT: P. Peters- Wendisch

; TITLE OF INVENTION: Nukleotide sequences coding for proteins participating in the syn-

; TITLE OF INVENTION: L-serin, improved process for the microbial manufacture of L-ser

; TITLE OF INVENTION: genetically modified microorganism suitable for the process.

; FILE REFERENCE: FZJ-9912-PCT

Qy	1176	CTCCGGTGACAGCAAGTGACGATTTTGTGAAACACATCTCTGTTTACCGGCGGCATTTGTTG	1235
Db	1058	CTCCGGTGACAGCAAGTGACGATTTTGTGAAACACATCTCTGTTTACCGGCGGCATTTGTTG	1117
Qy	1236	CTGCGTGGGTTTGGGCAATTCAGCTTTCTGAATCTTTGATGATGATGATGATGATGATGATG	1295
Db	1118	CTGCGTGGGTTTGGGCAATTCAGCTTTCTGAATCTTTGATGATGATGATGATGATGATGATG	1177
Qy	1296	AGTCCGCTGACAGCACCAATTAATTTGCTACATTTGCGCCCGCATTAATCGCTGCTGCGTCA	1355
Db	1178	AGTCCGCTGACAGCACCAATTAATTTGCTACATTTGCGCCCGCATTAATCGCTGCTGCGTCA	1237
Qy	1356	CCGACAGCGGCTTTCGACAGTGGGTTGTTACGCGGAGTGGTCTCTCGGTGATTAATTTGCGGGC	1415
Db	1238	CCGACAGCGGCTTTCGACAGTGGGTTGTTACGCGGAGTGGTCTCTCGGTGATTAATTTGCGGGC	1297
Qy	1416	TTACTGCGCTGATGGGTTCTGCGTTTATTAACCTCTTCTGTTGTTTATTTAGGCCCCGTCT	1475
Db	1298	TTACTGCGCTGATGGGTTCTGCGTTTATTAACCTCTTCTGTTGTTTATTTAGGCCCCGTCT	1357
Qy	1476	CTGCGCTGCGATTTGCTGCAACACAGCAGTGTGTTTCACTGGTGGTTCCTGCTGCCGTCGAT	1535
Db	1358	CTGCGCTGCGATTTGCTGCAACACAGCAGTGTGTTTCACTGGTGGTTCCTGCTGCCGTCGAT	1417
Qy	1536	TCCTGATTCCACCGCTTGTGTCGATTTGTCGCGATTTGCCGTCATCACACCAATGCTTCCAGGTCTAG	1595
Db	1418	TCCTGATTCCACCGCTTGTGTCGATTTGTCGCGATTTGCCGTCATCACACCAATGCTTCCAGGTCTAG	1477
Qy	1596	CAATTTACCGCGGAATGTACGCCACCTTTGAATGATGATGATGATGATGATGATGATGATG	1655
Db	1478	CAATTTACCGCGGAATGTACGCCACCTTTGAATGATGATGATGATGATGATGATGATGATG	1537
Qy	1656	TTGCGGTTGCTTTAGCCACTGCTTCACTGTCGCGCTGGCTGGTTCCTGCTGCCGTCGATGGA	1715
Db	1538	TTGCGGTTGCTTTAGCCACTGCTTCACTGTCGCGCTGGCTGGTTCCTGCTGCCGTCGATGGA	1597
Qy	1716	TTGCCCGCAGGCTACGCTGCTCCACACGCTTCAACCCATACCGTGCATTTTACCAAGGCGA	1775
Db	1598	TTGCCCGCAGGCTACGCTGCTCCACACGCTTCAACCCATACCGTGCATTTTACCAAGGCGA	1657
Qy	1776	ATGAGTTTCTCTTCCAGGAGGAAGCTGAGCAGAAATCAGCGCGGCGCAGAGAAACGTCAA	1835
Db	1658	ATGAGTTTCTCTTCCAGGAGGAAGCTGAGCAGAAATCAGCGCGGCGCAGAGAAACGTCAA	1717
Qy	1836	AGACTAATCAAGATTCGGTAATAAAGGTAAATAACCTGCTTAGGCGTCTTTTCGCT	1895
Db	1718	AGACTAATCAAGATTCGGTAATAAAGGTAAATAACCTGCTTAGGCGTCTTTTCGCT	1777
Qy	1896	TAAATAGCTAGATAATTCGGTTCGATCGCTTTTAAACACACTCAGGAGGATCCTTCCCGGCC	1955
Db	1778	TAAATAGCTAGATAATTCGGTTCGATCGCTTTTAAACACACTCAGGAGGATCCTTCCCGGCC	1837
Qy	1956	AAATACACGACACTGCTCCACCCAGAAATCCCTTCAACGCTGTGTAAGAGGAAACCGCA	2015
Db	1838	AAATACACGACACTGCTCCACCCAGAAATCCCTTCAACGCTGTGTAAGAGGAAACCGCA	1897
Qy	2016	GCCGGTG 2022	
Db	1898	GCCGGGG 1904	

/ CURRENT APPLICATION NUMBER: US/10/224,574  
/ CURRENT FILING DATE: 2002-08-21  
/ NUMBER OF SEQ ID NOS: 12  
/ SOFTWARE: PatentIn Ver. 2.1  
/ SEQ ID NO 11  
/ LENGTH: 1909  
/ TYPE: DNA  
/ ORGANISM: C. glutanicum ATCC 13 032  
/ FEATURE:  
/ NAME/KEY: CDS  
/ LOCATION: (280)..(1746)  
/ OTHER INFORMATION: thr E (Threonin-exportcarrier)  
US-10-224-574-11

Query Match		65.2%;	Score 1836.6;	DB 17;	Length 1909;
Best Local Similarity		99.0%;	Pred. No. 0;	Mismatches 19;	Indels 0; Gaps 0;
Matches 1848;		Conservative 0;			
QY	156	CCCCCTTGACCTGGTGTATTAGCTGGAGAGAGACTTGAACCTCAACCTAAGCATTA	215		
Db	38	CCCCCTTGACCTGGTGTATTAGCTGGAGAGAGACTTGAACCTCAACCTAAGCATTA	97		
QY	216	CAAGTGGCTGGCTGGCCAAATGGCCCACTCCAGCACCGGAGATGCTGATGATCAACAAC	275		
Db	98	CAAGTGGCTGGCTGGCCAAATGGCCCACTCCAGCACCGGAGATGCTGATGATCAACAAC	157		
QY	276	TACGAATACGTATCTTAGCGTATGTATACATCACAAATGGAATTCGGGGCTAGAGTATCTG	335		
Db	158	TACGAATACGTATCTTAGCGTATGTATACATCACAAATGGAATTCGGGGCTAGAGTATCTG	217		
QY	336	GTGAACCGTGCATAAACGACCTGTGATTTGGAATCTCTTTTCTTCCATAAATGTTTCCAGC	395		
Db	218	GTGAACCGTGCATAAACGACCTGTGATTTGGAATCTCTTTTCTTCCATAAATGTTTCCAGC	277		
QY	396	GGATGTTGAGTTTGGCGAGAAATGGCGCACTTCTGTCGCCCAATTTCAAAGTTGACGCTGC	455		
Db	278	GGATGTTGAGTTTGGCGAGAAATGGCGCACTTCTGTCGCCCAATTTCAAAGTTGACGCTGC	337		
QY	456	CACCTCCGCCATCGCCATAGCCCGGATTGATCTCACTGACCATAGTCAAGTGGCGCGGTG	515		
Db	338	CACCTCCGCCATCGCCATAGCCCGGATTGATCTCACTGACCATAGTCAAGTGGCGCGGTG	397		
QY	516	TGATGAATTTGGCTGGCGAGAAATGGCGCAATTTTGGCTTTCTTCAGGTACGTCAAACAGTG	575		
Db	398	TGATGAATTTGGCTGGCGAGAAATGGCGCAATTTTGGCTTTCTTCAGGTACGTCAAACAGTG	457		
QY	576	ATACCAAGGTCCAAAGTTTCGAGCGGTGACCTCTCGGTATGGCTGTACTATACGCATGTGG	635		
Db	458	ACACCAAGGTCCAAAGTTTCGAGCAGTGACCTCTGGGTACGGTTTGTACTACAGCGAGTGG	517		
QY	636	ATATCAGGTTGAATACGATCAACCATCTTCCACCAACATCGGTGTGGAGGAGAAATGCCGG	695		
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QY	696	TCAACGTTTTCATGTTGTGGGCAAGTTGGACACCAACTTCTCAGGTACGTCGAGGTTG	755		
Db	578	TCAACGTTTTCATGTTGTGGGCAAGTTGGACACCAACTTCTCAGGTACGTCGAGGTTG	637		
QY	756	ACCGTTTTCATGTTTCATTTTCAGGCTGGTGTACCCCGCTGAGTTTCCCGGAGAAATTC	815		
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QY	996	CTACTTTCTTCCAAAAATGTTGTTGGTGTATTATGCCACGCTGCTGCATCGATTGCTT	1055
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QY	1056	ATTCTTTGGGGTTCGAATTTGGTCTTGAGATCAAAACGAGCCAGATCATCGCATCTGGAA	1115
Db	938	ATTCTTTGGGGTTCGAATTTGGTCTTGAGATCAAAACGAGCCAGATCATCGCATCTGGAA	997
QY	1116	TTGTTGTGCTGTTGGCAGGTTTGACACTCTGTGCAATCTCTGCAAGGACGGCATCACGGCG	1175
Db	998	TTGTTGTGCTGTTGGCAGGTTTGACACTCTGTGCAATCTCTGCAAGGACGGCATCACGGCG	1057
QY	1176	CTCGGTTGACAGCAAGTGACGATTTTGAACAACATCTCTGTTTACCGGGCGGATTTG	1235
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QY	1236	CTCGCGTGGGTTTGGGCATTTACGCTTCTGAAATCTTGCAATGTCATGTTGCCCTGCCATGG	1295
Db	1118	CTCGCGTGGGTTTGGGCATTTACGCTTCTGAAATCTTGCAATGTCATGTTGCCCTGCCATGG	1177
QY	1296	AGTCCGCTGCAGCACCTAATTTATTCGTCTACATTTCCGCCGCAATATCGCTGTGGGCTCA	1355
Db	1178	AGTCCGCTGCAGCACCTAATTTATTCGTCTACATTTCCGCCGCAATATCGCTGTGGGCTCA	1237
QY	1356	CCGACAGCGGCTTCCGAGTGGGTTGTTACCGGAGTGGTCTCGGTGATTTTTCGGGGGC	1415
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QY	1416	TTACTCGCTGATGGGTTCTGGGTTTATTAATCTCTCTGTTGTTATTTAGGCCCGCTCT	1475
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QY	1476	CTGCCCTGCGATGCTGCAACAGCAGTTGGTTTCACTGGTGTGTTTGTGTCCTCGAT	1535
Db	1358	CTGCCCTGCGATGCTGCAACAGCAGTTGGTTTCACTGGTGTGTTTGTGTCCTCGAT	1417
QY	1536	TCCTGATTTCCACCGTTGATTTGGCGATTTGCCGGATCACACAATGCTTTCAGGTCTAG	1595
Db	1418	TCCTGATTTCCACCGTTGATTTGGCGATTTGCCGGATCACACAATGCTTTCAGGTCTAG	1477
QY	1596	CAATTTACCGCGAATGTACGCCACCTTGAATGATCAAAACACTCATGGGTTTCAACCA	1655
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QY	1656	TTGCCGTTGCTTTAGCCACTGCTTCACTTTCGCGCTGGCGTGGTGGGTGAGTGA	1715
Db	1538	TTGCCGTTGCTTTAGCCACTGCTTCACTTTCGCGCTGGCGTGGTGGGTGAGTGA	1597
QY	1716	TTGCCCGCAGGCTACGTCGTCCACACGCTTCAACCCCATACCGTGCATTTTCAAGGGGA	1775
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QY	1776	ATGAGTTCTCTTCCAGGAGGAGCTGAGCAGAAATCAGCGCGGAGAGAAACGTCCTCA	1835
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QY	2016	GCCGGTG 2022	
Db	1898	GCCGGTG 1904	

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 ; Sequence 557, Application US/10627476  
 ; Publication No. US20040030116A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Pompejus, Mark  
 ; APPLICANT: Kroger, Burkhard  
 ; APPLICANT: Schoder, Hartwig  
 ; APPLICANT: Zelder, Oskar  
 ; APPLICANT: Habershauer, Gregor  
 ; TITLE OF INVENTION: INVOLVED IN MEMBRANE SYNTHESIS AND MEMBRANE  
 ; TITLE OF INVENTION: CORYNEBACTERIUM GLUTAMICUM GENES ENCODING PROTEINS  
 ; TITLE OF INVENTION: TRANSPORT  
 ; FILE REFERENCE: BGI-125PCPN  
 ; CURRENT APPLICATION NUMBER: US/10/627,476  
 ; PRIOR FILING DATE: 2003-07-25  
 ; PRIOR APPLICATION NUMBER: 09/602,787  
 ; PRIOR FILING DATE: 2000-06-23  
 ; PRIOR APPLICATION NUMBER: USSN 60/141031  
 ; PRIOR FILING DATE: 1999-06-25  
 ; PRIOR APPLICATION NUMBER: DE 19931454.3  
 ; PRIOR FILING DATE: 1999-07-08  
 ; PRIOR APPLICATION NUMBER: DE 19931478.0  
 ; PRIOR FILING DATE: 1999-07-08  
 ; PRIOR APPLICATION NUMBER: DE 19931563.9  
 ; PRIOR FILING DATE: 1999-07-08  
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 ; PRIOR FILING DATE: 1999-07-09  
 ; PRIOR APPLICATION NUMBER: DE 19932124.8  
 ; PRIOR FILING DATE: 1999-07-09  
 ; PRIOR APPLICATION NUMBER: DE 19932125.6  
 ; PRIOR FILING DATE: 1999-07-09  
 ; PRIOR APPLICATION NUMBER: DE 19932128.0  
 ; PRIOR FILING DATE: 1999-07-09  
 ; PRIOR APPLICATION NUMBER: DE 19932180.9  
 ; PRIOR FILING DATE: 1999-07-09  
 ; Remaining Prior Application data removed - See File Wrapper or PALM.  
 ; NUMBER OF SEQ ID NOS: 678  
 ; SEQ ID NO 557  
 ; LENGTH: 1590  
 ; TYPE: DNA  
 ; ORGANISM: Corynebacterium glutamicum  
 ; FEATURE:  
 ; NAME/KEY: CDS  
 ; LOCATION: (101)..(1567)  
 ; OTHER INFORMATION: RXN00349  
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 Query Match 55.4%; Score 1561.2; DB 16; Length 1590;  
 Best Local Similarity 98.9%; Pred. No. 0;  
 Matches 1572; Conservative 0; Mismatches 18; Indels 0; Gaps 0;  
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 QY 358 GTGATTTGGACTCTTTTCCTTCGAAAATGTTTTTCAGCGGATGTGTAGTTTGGACCCCT 417  
 DB 61 GTGATTTGGACTCTTTTCCTTCGAAAATGTTTTTCAGCGGATGTGTAGTTTGGACCCCT 120  
 QY 418 TCGTGGCCGATTTCAACAGTTTGAAGCTGCAAAAGCCGACCTCGGCCATCGCCACTAGC 477  
 DB 121 TCGTGGCCGATTTCAACAGTTTGAAGCTGCAAAAGCCGACCTCGGCCATCGCCACTAGC 180  
 QY 478 CCGGATTTGATCTCACTGACCATAGTCAAGTGGCCGGTGTGTATGAATTTGGCTGCGAGAAT 537  
 DB 181 CCGGATTTGATCTCACTGACCATAGTCAAGTGGCCGGTGTGTATGAATTTGGCTGCGAGAAT 240  
 QY 538 TGGCGATATTTTGTCTTTCTTCAAGTACGTCAAAAGATGATACCAAGTGCAGTTTCAGC 597  
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; Sequence 41, Application US/10450055
; Publication No. US20040043953A1
; GENERAL INFORMATION:
; APPLICANT: BASF Aktiengesellschaft
; TITLE OF INVENTION: No. US20040043953A1el genes of Corynebacterium
; FILE REFERENCE: 936 2000
; CURRENT APPLICATION NUMBER: US/10/450,055
; CURRENT FILING DATE: 2003-06-10
; NUMBER OF SEQ ID NOS: 46
; SOFTWARE: PatentIn Vers. 2.0
; SEQ ID NO 41
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; ORGANISM: Corynebacterium glutamicum
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (101)..(1567)
; OTHER INFORMATION: RXS00349
US-10-450-055-41

Query Match 55.4%; Score 1561.2; DB 16; Length 1590;
Best Local Similarity 98.9%; Pred. No. 0;
Matches 1572; Conservative 0; Mismatches 18; Indels 0; Gaps 0;

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Qy 1138 GACACTTGTGCAATCTCTGAGGACCGCATCACGGGCGCTCCGGTGACAGCAAGTGCAAG 1197
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Db 1561 TAAAGGTAAAAATCAACCTGCTTAGGCGT 1590  
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GenCore version 5.1.6  
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OM nucleic - nucleic search, using sw model

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Maximum Match 100%

Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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7	46.6	2.4	400	4	US-08-956-171E-4234
8	46.6	2.4	400	4	US-08-781-986A-4234
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ALIGNMENTS

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; Sequence 3, Application US/09431099  
; Patent No. 6410705  
; GENERAL INFORMATION:  
; APPLICANT: Degussa-Hols AG  
; APPLICANT: Forschungszentrum-Jolich GmbH  
; TITLE OF INVENTION: New nucleotide sequences coding for the thrE gene and process for  
; FILE REFERENCE: 990079 Bt  
; CURRENT APPLICATION NUMBER: US/09/431,099  
; CURRENT FILING DATE: 1999-11-01  
; NUMBER OF SEQ ID NOS: 4  
; SOFTWARE: Patentin Ver. 2.1  
; SEQ ID NO 3  
; LENGTH: 1909  
; TYPE: DNA  
; ORGANISM: Corynebacterium glutamicum ATCC13032  
; NAME/KEY: CDS  
; LOCATION: (280)..(1746)  
; OTHER INFORMATION: thrE-Gen  
US-09-431-099-3

Query Match	100.0%	Score	1909;	DB	4;	Length	1909;
Best Local Similarity	100.0%	Pred. No.	0;				
Matches	1909;	Conservative	0;	Mismatches	0;	Indels	0;
Gaps	0;						
Qy	1	AGCTTGATGCCTGCAGTTCGACCTCTAGAGGATCCGCCCTTTGACCTGGTGTATTGA	60				
Db	1	AGCTTGATGCCTGCAGTTCGACCTCTAGAGGATCCGCCCTTTGACCTGGTGTATTGA	60				
Qy	61	GCTGGAAGAGAGCTTGAACCTCTCAACCTAGCATTAACAGTGGCTTGCCTGCCAATG	120				
Db	61	GCTGGAAGAGAGCTTGAACCTCTCAACCTAGCATTAACAGTGGCTTGCCTGCCAATG	120				
Qy	121	CGCCACTCCAGCAGCCGAGATGCTGATGATCAACAACTACGAATCGTATCTTAGCGPAT	180				
Db	121	CGCCACTCCAGCAGCCGAGATGCTGATGATCAACAACTACGAATCGTATCTTAGCGPAT	180				
Qy	181	GTGTACATCAATGGAATTCGGGGCTAGAGTACTCGTGAACCGTGCATAAACGACCTG	240				
Db	181	GTGTACATCAATGGAATTCGGGGCTAGAGTACTCGTGAACCGTGCATAAACGACCTG	240				
Qy	241	TGATTGGACTCTTTTCTTTCGAAAATGTTTTCCAGCGGATGTTGAGTTTTGCACCCCTT	300				
Db	241	TGATTGGACTCTTTTCTTTCGAAAATGTTTTCCAGCGGATGTTGAGTTTTGCACCCCTT	300				
Qy	301	CGTGGCGCAATTCACACAGTTGACGCTGCACAAAGCCGACCTCCGCCATCCCACTAGCC	360				
Db	301	CGTGGCGCAATTCACACAGTTGACGCTGCACAAAGCCGACCTCCGCCATCCCACTAGCC	360				

Db 301 CGTGGCCGCAITTTCAACAGTTGACGCTGCMAAGCCGACACCTCCGCCATCGCCACTAGCC 360  
Qy 361 CCGATTGATCTCAGTACCATAGTCAAGTGGCGGTGTGATGAATTTGGCTGCGAANTT 420  
Db 361 CCGATTGATCTCAGTACCATAGTCAAGTGGCGGTGTGATGAATTTGGCTGCGAANTT 420  
Qy 421 GCGGATATTTTGTCTTCTTCAAGTACGTCAAAATAGTGCACCAAGGTACAAGTTGAGCA 480  
Db 421 GCGGATATTTTGTCTTCTTCAAGTACGTCAAAATAGTGCACCAAGGTACAAGTTGAGCA 480  
Qy 481 GTGACCTCTGCGTACGGTTGTGACTACACGCAAGTGGATATCACGTTGAATACGATCACC 540  
Db 481 GTGACCTCTGCGTACGGTTGTGACTACACGCAAGTGGATATCACGTTGAATACGATCACC 540  
Qy 541 ATCTTCCACCAACATCGGTGGAGAGGAAGATGCCGCTCAACGTTTTCATGTTGTAGGC 600  
Db 541 ATCTTCCACCAACATCGGTGGAGAGGAAGATGCCGCTCAACGTTTTCATGTTGTAGGC 600  
Qy 601 AAGTTGGACACCAACTTCTCCAAAATCTGTGAGGTTGACCGTTTGATCCGTTCCATTTGAG 660  
Db 601 AAGTTGGACACCAACTTCTCCAAAATCTGTGAGGTTGACCGTTTGATCCGTTCCATTTGAG 660  
Qy 661 GGTGGTGCAGCCCGCTGAGGTTGCCGAGAAATCTTGGACGAGTTGGAGCAATCCCGT 720  
Db 661 GGTGGTGCAGCCCGCTGAGGTTGCCGAGAAATCTTGGACGAGTTGGAGCAATCCCGT 720  
Qy 721 GCGTCTTATGTTTCCCTGTTGCGTTGCTTGGCTGGGCAATGATGGGTGCTGTTGCT 780  
Db 721 GCGTCTTATGTTTCCCTGTTGCGTTGCTTGGCTGGGCAATGATGGGTGCTGTTGCT 780  
Qy 781 GTGCTGTTGGGTGGTGGATGTCAGGTTTCCCTAATGCTTTTATACCGGTTTCCAGATC 840  
Db 781 GTGCTGTTGGGTGGTGGATGTCAGGTTTCCCTAATGCTTTTATACCGGTTTCCAGATC 840  
Qy 841 ATTGCCAGAGCTCATTTTTTGGGAAAGAGGTTTGCTACTTTTCCAAAATGTTGTT 900  
Db 841 ATTGCCAGAGCTCATTTTTTGGGAAAGAGGTTTGCTACTTTTCCAAAATGTTGTT 900  
Qy 901 GGTGGTTTATTTGCCAGCTGCTGCATCGATTCGTTATTTCTTTGGGTTGCAATTTGGT 960  
Db 901 GGTGGTTTATTTGCCAGCTGCTGCATCGATTCGTTATTTCTTTGGGTTGCAATTTGGT 960  
Qy 961 CTTGAGATCAACCGAGCAGATCATCGATCTCGAATTTGTTGCTGTTGGCAGGTTTG 1020  
Db 961 CTTGAGATCAACCGAGCAGATCATCGATCTCGAATTTGTTGCTGTTGGCAGGTTTG 1020  
Qy 1021 ACATCTGTGCAATCTCTGCAGGACGGCATACCGGGCGCTCCGGTGACAGCAAGTGCACGA 1080  
Db 1021 ACATCTGTGCAATCTCTGCAGGACGGCATACCGGGCGCTCCGGTGACAGCAAGTGCACGA 1080  
Qy 1081 TTTTTTCGAAACACTCTGTTTACCGGGGCAATGTTGTCGCGTGGGTTTGGGCAATTCAG 1140  
Db 1081 TTTTTTCGAAACACTCTGTTTACCGGGGCAATGTTGTCGCGTGGGTTTGGGCAATTCAG 1140  
Qy 1141 CTTTCTGAATCTTGTGATGTCATGTTGCTGCTGCAATGAGTCCGCTGCAGCACCTTAATAT 1200  
Db 1141 CTTTCTGAATCTTGTGATGTCATGTTGCTGCTGCAATGAGTCCGCTGCAGCACCTTAATAT 1200  
Qy 1201 TCGTCTACATTCGCGCGCATATATCGTGTGGGCTTACCGAGCGGCTTCGCAAGTGGGT 1260  
Db 1201 TCGTCTACATTCGCGCGCATATATCGTGTGGGCTTACCGAGCGGCTTCGCAAGTGGGT 1260  
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Qy 1321 TTTTATTAACCTCTTCTGTTTATTTAGGGGCTTCTCTGCGCTGCGATTTGCTGCAACA 1380  
Db 1321 TTTTATTAACCTCTTCTGTTTATTTAGGGGCTTCTCTGCGCTGCGATTTGCTGCAACA 1380  
Qy 1381 GCAGTTGGTTCACTGGTGGTTGCTTGGCGGCTGATTTCTTGATTCACCGTTGATGTCG 1440  
Db 1381 GCAGTTGGTTTCACTGGTGGTTGCTTGGCGGCTGATTTCTTGATTCACCGTTGATGTCG 1440

Qy 1441 GCGATTGCGGCATCACCAATGCTTCCAGGCTTAGCAATTTTACCGGGGATGTACGCC 1500  
Db 1441 GCGATTGCGGCATCACCAATGCTTCCAGGCTTAGCAATTTTACCGGGGATGTACGCC 1500  
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Db 1501 ACCCTGAATGATCAAAACACTCATGGGTTTACCACCAATTTGCGGTTGCTTTAGCCACTGCT 1560  
Qy 1561 TCATCACTTTCACCATACCGTGCATTTACCAAGCGAATGAGTTCTCTCTCCAGGAGAA 1620  
Db 1561 TCATCACTTTCACCATACCGTGCATTTACCAAGCGAATGAGTTCTCTCTCCAGGAGAA 1620  
Qy 1621 CCAGCTTTCACCATACCGTGCATTTACCAAGCGAATGAGTTCTCTCTCCAGGAGAA 1680  
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Qy 1681 GCTGAGCAGAAATCAGCGCCGCGCAGAGAAAACGTCCTCAAGACTAATCAGAGATTCGGTAAT 1740  
Db 1681 GCTGAGCAGAAATCAGCGCCGCGCAGAGAAAACGTCCTCAAGACTAATCAGAGATTCGGTAAT 1740  
Qy 1741 AAAAGGTAAATAACACTGCTTAGGCGTCTTTGCGTTTAAATAGCGTAGAATATCGGGTC 1800  
Db 1741 AAAAGGTAAATAACACTGCTTAGGCGTCTTTGCGTTTAAATAGCGTAGAATATCGGGTC 1800  
Qy 1801 GATCGCTTTTAAACACTCAGGAGGATCCTTGGCGGCCAAAATCAGGACACTCGTCCAC 1860  
Db 1801 GATCGCTTTTAAACACTCAGGAGGATCCTTGGCGGCCAAAATCAGGACACTCGTCCAC 1860  
Qy 1861 CCCAGATCCCTTCAACGCTGTTGAAGAGAAAACCGCAGCGGGGTACCG 1909  
Db 1861 CCCAGATCCCTTCAACGCTGTTGAAGAGAAAACCGCAGCGGGGTACCG 1909

RESULT 2

US-09-431-099-1  
; Sequence 1, Application US/09431099  
; Patent No. 6410705  
; GENERAL INFORMATION:  
; APPLICANT: Degussa-Hols AG  
; TITLE OF INVENTION: Forschungszentrum-Jolich GmbH  
; TITLE OF INVENTION: New nucleotide sequences coding for the thrE gene and process for  
; FILE REFERENCE: 990079 BT enzymatic production of L-threonine with coryneform bacteria.  
; CURRENT APPLICATION NUMBER: US/09/431,099  
; NUMBER OF SEQ ID NOS: 4  
; SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 1  
; LENGTH: 2817  
; TYPE: DNA  
; ORGANISM: Corynebacterium glutamicum ATCC14752  
; FEATURE:  
; NAME/KEY: CDS  
; LOCATION: (398)..(1864)  
; OTHER INFORMATION: thrE-Gen  
US-09-431-099-1

Query Match 96.2%; Score 1836.6; DB 4; Length 2817;  
Best Local Similarity 99.0%; Pred. No. 0;  
Matches 1848; Conservative 0; Mismatches 19; Indels 0; Gaps 0;

Qy 38 CCCCTTTGACCTGGTGTATTGAGCTGGAGAGAGACTTGAACCTTCAACCTAGCAATTA 97  
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Qy 98 CAAAGTGGTGGCGTCCCAATTCGCGCACTCCAGCACCAGATGCTGATGATCAACAAC 157  
Db 216 CAAAGTGGTGGCGTCCCAATTCGCGCACTCCAGCACCAGATGCTGATGATCAACAAC 275  
Qy 158 TAGCAATAGTATCTTAGCGGTATGTATACATAAATGAAATTCGGGGCTAGAGTATCTG 217  
Db 276 TAGCAATAGTATCTTAGCGGTATGTATACATAAATGAAATTCGGGGCTAGAGTATCTG 335

QY 218 GTGAACCGTGCATAAACGACCTGTGAATGGACTCTTTTCTTGCAAAATGTTTTCCAGC 277  
DB 336 GTGAACCGTGCATAAACGACCTGTGAATGGACTCTTTTCTTGCAAAATGTTTTCCAGC 395  
QY 278 GGATGTGAGTTTGGCGACCTTCGTGCGCGAATTTCAACAGTTGACGCTGCAAAAGCG 337  
DB 396 GGATGTGAGTTTGGCGACCTTCGTGCGCGAATTTCAACAGTTGACGCTGCAAAAGCG 455  
QY 338 CACCTCCGCCATCGCCATGACCCGATGATCTCAGTACGACATAGTCAAGTGCCTGG 397  
DB 456 CACCTCCGCCATCGCCATGACCCGATGATCTCAGTACGACATAGTCAAGTGCCTGG 515  
QY 398 TGATGAATTTGGCTGCGAGAAATGGCGGATATTTTGTCTTTCTTCCAGGTACGTAATAGTG 457  
DB 516 TGATGAATTTGGCTGCGAGAAATGGCGGATATTTTGTCTTTCTTCCAGGTACGTAATAGTG 575  
QY 458 ACACCAAGGTACAAGTTTCAGAGAGTGAACCTCTGCGTACGTTTGTATACGACGTTGG 517  
DB 576 ATACCAAGGTACAAGTTTCAGAGAGTGAACCTCTGCGTATGGCTGTACTATACGATGTGG 635  
QY 518 ATATCACGTTGAATACGATCACCATTCTTCAACACATCGGTGAGAGGAAGATGCCGG 577  
DB 636 ATATCACGTTGAATACGATCACCATTCTTCAACACATCGGTGAGAGGAAGATGCCGG 695  
QY 578 TCAACGTTGTCATGTTGTAGGCAAGTTGGACACCAACTTCTCCAAAATGTTCTGAGGTTG 637  
DB 696 TCAACGTTGTCATGTTGTGGGCAAGTTGGACACCAACTTCTCCAAAATGTTCTGAGGTTG 755  
QY 638 ACCGTTGATCCGTTCCATTGAGGTGTTGCGAAGTGGGCTGAGGTTGCCGAGAAAATCC 697  
DB 756 ACCGTTGATCCGTTCCATTGAGGTGTTGCGAAGTGGGCTGAGGTTGCCGAGAAAATCC 815  
QY 698 TGGACGAGTTGGAGCAATCCCTCGCTTATGTTTCCCTGTTGCGTTGCTTGGCTGGG 757  
DB 816 TGGACGAGTTGGAGCAATCCCTCGCTTATGTTTCCCTGTTGCGTTGCTTGGCTGGG 875  
QY 758 CAATGATGGGTGGTGTCTGCTGCTGTTGTTGGGTGGTGGATGGCAGGTTTCCCTAATTG 817  
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QY 1118 CTCGCGTGAGTTTGGGCATTCAGCTTTCTGAAATCTTGCAATGTCATGTTGCTGCAATGG 1177  
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DB 1296 AGTCCGCTGACGACCTAATTTATGCTCTAATTTGCCCGCATTAATCGTGGTGGCGTCA 1355  
QY 1238 CCGCAGCGGCTTCCGAGTGGGTTGTACGCGGAGTGTCTCTCGTGGATTTATTCGGGGC 1297  
DB 1356 CCGCAGCGGCTTCCGAGTGGGTTGTACGCGGAGTGTCTCTCGTGGATTTATTCGGGGC 1415

QY 1298 TTACTGCGCTGATGGGTTCTGCGTTTATTTATTTATTTATTTATTTAGCCCCGCTCT 1357  
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QY 1358 CTGCGCTGCGATTTGCTGCAACAGCAGTTGGTTTCACTGGTGGTTTGGTGGCGGCTCAT 1417  
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DB 1896 TAAATAGCTAGAATATCGGGTCGATCGCTTTTAAACACTCAGGAGGATCCTTGGCGGCC 1955  
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DB 1956 AAAATCAAGGACATCGTCCACCCAGAAATCCCTTCAACGCTGTTGAAAGAGAAACCGCA 2015  
QY 1898 GCCGGGG 1904  
DB 2016 GCCGGTG 2022

RESULT 3  
US-09-602-787A-557  
; Sequence 557, Application US/09602787A  
; Patent No. 6696561  
; GENERAL INFORMATION:  
; APPLICANT: Pompejus, Mark  
; APPLICANT: Krüger, Burkhard  
; APPLICANT: Schöder, Hartwig  
; APPLICANT: Zelder, Oskar  
; APPLICANT: Haberhauer, Gregor  
; TITLE OF INVENTION: CORYNEBACTERIUM GLUTAMICUM GENES ENCODING PROTEINS  
; TITLE OF INVENTION: INVOLVED IN MEMBRANE SYNTHESIS AND MEMBRANE  
; TITLE OF INVENTION: TRANSPORT  
; FILE REFERENCE: BGI-125CP  
; CURRENT APPLICATION NUMBER: US/09/602,787A  
; CURRENT FILING DATE: 2000-06-23  
; PRIOR APPLICATION NUMBER: USN 60/141031  
; PRIOR FILING DATE: 1999-06-25  
; PRIOR APPLICATION NUMBER: DE 19931454.3  
; PRIOR FILING DATE: 1999-07-08  
; PRIOR APPLICATION NUMBER: DE 19931478.0  
; PRIOR FILING DATE: 1999-07-08  
; PRIOR APPLICATION NUMBER: DE 19931563.9  
; PRIOR FILING DATE: 1999-07-08  
; PRIOR APPLICATION NUMBER: DE 19932122.1  
; PRIOR FILING DATE: 1999-07-09  
; PRIOR APPLICATION NUMBER: DE 19932124.8  
; PRIOR FILING DATE: 1999-07-09

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/ PRIOR APPLICATION NUMBER: DE 19932125.6
/ PRIOR FILING DATE: 1999-07-09
/ PRIOR APPLICATION NUMBER: DE 19932128.0
/ PRIOR FILING DATE: 1999-07-09
/ PRIOR APPLICATION NUMBER: DE 19932180.9
/ PRIOR FILING DATE: 1999-07-09
/ PRIOR APPLICATION NUMBER: DE 19932182.5
/ PRIOR FILING DATE: 1999-07-09
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/ PRIOR APPLICATION NUMBER: DE 19932212.0
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/ PRIOR APPLICATION NUMBER: DE 19942078.5
/ PRIOR FILING DATE: 1999-09-03
/ PRIOR APPLICATION NUMBER: DE 19942079.3
/ PRIOR FILING DATE: 1999-09-03
/ PRIOR APPLICATION NUMBER: DE 19942088.2
/ PRIOR FILING DATE: 1999-09-03
/ NUMBER OF SEQ ID NOS: 678
/ SEQ ID NO 557
/ LENGTH: 1590
/ TYPE: DNA
/ ORGANISM: Corynebacterium glutamicum
/ FEATURE:
/ NAME/KEY: CDS
/ LOCATION: (101)..(1567)
/ OTHER INFORMATION: RXN00349
Us-09-602-787A-557

Query Match      83.3%; Score 1590; DB 4; Length 1590;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1590; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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QY 240 GTGATTGGACTCTTTTCCCTTGCAAAATGTTTTCCAGCGGATGTTGAGTTTGGGACCCCT 299
DB 61 GTGATTGGACTCTTTTCCCTTGCAAAATGTTTTCCAGCGGATGTTGAGTTTGGGACCCCT 120
QY 300 TCGTGGCCGCAATTTCAAACAGTTGACGCTGCAAAAGCCGACCTCCGCCATCGCCACTAGC 359
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QY 360 CCGAATTGATCTCACTGACCACTAGTCAAGTGGCCGGTGTGATGAATTTGGCTGGGAGAAT 419
DB 181 CCGAATTGATCTCACTGACCACTAGTCAAGTGGCCGGTGTGATGAATTTGGCTGGGAGAAT 240
QY 420 TGGCGATATTTTGGCTTTCTTCAGGTACGTCAAAATAGTGACACCAAGGTACAAGTTCCAGC 479
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QY 480 AGTGACCTCTGCGTACGCTTTGTACTACACGCACTGGAATACAGTGTGAATACGATCAC 539
DB 301 AGTGACCTCTGCGTACGCTTTGTACTACACGCACTGGAATACAGTGTGAATACGATCAC 360
QY 540 CATCTTCAACCAACATCGGTGTGAGAGGAAGATGCCGGTCAACGTGTTTCATGTTGAGG 599
DB 361 CATCTTCAACCAACATCGGTGTGAGAGGAAGATGCCGGTCAACGTGTTTCATGTTGAGG 420
QY 600 CAAAGTTGGACACCAACTTCTCCAAACTGTCTGAGGTTGACCGTTTGATCCGTTCCATTCA 659
DB 421 CAAAGTTGGACACCAACTTCTCCAAACTGTCTGAGGTTGACCGTTTGATCCGTTCCATTCA 480
QY 660 GGCTGTGCGAACCCCGCTGAGGTTGCGGAGAAAATCTCTGGACGAGTTGGAGCAATCCCC 719
DB 481 GGCTGTGCGAACCCCGCTGAGGTTGCGGAGAAAATCTCTGGACGAGTTGGAGCAATCCCC 540
QY 720 TCGGTCTTATGTTTCCCTGTTGCTGCTGGCTGGCAATGATGGGTGGTCTGTTGC 779
DB 541 TCGGTCTTATGTTTCCCTGTTGCTGCTGGCTGGCAATGATGGGTGGTCTGTTGC 600
QY 780 TGTGCTGTTGGGTGGTGGATGGCAGGTTTCCCTAAATTTGCTTTTATACCGCGTTTCCAGAT 839
DB 601 TGTGCTGTTGGGTGGTGGATGGCAGGTTTCCCTAAATTTGCTTTTATACCGCGTTTCCAGAT 660
QY 840 CATTGCGACGACGTCAATTTTGGGAAAGAGGTTTGGCTACCTTCTTCCAAAATGTTGT 899
DB 661 CATTGCGACGACGTCAATTTTGGGAAAGAGGTTTGGCTACCTTCTTCCAAAATGTTGT 720
QY 900 TGGTGGTTTTATTGCCACGCTGCTGCATCGATTGCTTATTTCTTGGCGTTGCAATTTGG 959
DB 721 TGGTGGTTTTATTGCCACGCTGCTGCATCGATTGCTTATTTCTTGGCGTTGCAATTTGG 780
QY 960 TCTTGAGATCAAAACCGAGCCAGATCATCGCATCTGGAATTTGTTGCTGTTGGCAGGTTT 1019
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QY 1020 GACACTCGTGCATCTCTGCGACGCGCATACGGGCGCTCCGGTGACAGCAAGTCACG 1079
DB 841 GACACTCGTGCATCTCTGCGACGCGCATACGGGCGCTCCGGTGACAGCAAGTCACG 900
QY 1080 ATTTTTCGAAAACACTCTCTGTTTACCGCGGCAATTTGTTGCTGGGCTGGGTTTGGGCAATCA 1139
DB 901 ATTTTTCGAAAACACTCTCTGTTTACCGCGGCAATTTGTTGCTGGGCTGGGTTTGGGCAATCA 960
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DB 961 GCTTTCGAAAATCTTGGCATGTCAATGTTGCTTGCATGGAGTCCGCTGCAGCACCTAATTA 1020
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DB 1021 TTCGTCTACATTCGGCCCGCATTTATCGTGGTGGCGTCAACCGAGGGCCCTTCGAGTGGG 1080
QY 1260 TTGTTACGGGAGTGTCTCTCGGTGATTATTTCGGGGCTTACTGCGCTGATGGGTTCTGC 1319
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Db 1081 TTGTTACGCGAGTGGTCTCGGTGATTAATGTCGGGGCTTACTGCGCTGATGGGTCTGCG 1140  
Qy 1320 GTTTTATTACCTCTTCGTTGTTTATTATAGGCCCGGTCTCTCGCGCTGCGATGCTGCAAC 1379  
Db 1141 GTTTTATTACCTCTTCGTTGTTTATTATAGGCCCGGTCTCTCGCGCTGCGATGCTGCAAC 1200  
Qy 1380 AGCAGTTGGTTTCACTGCTGCTTTCGTTGCTTTCGCGCTGCAATTCCTTGAATTCACCGTTGATGT 1439  
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Qy 1440 GGCAGTTCCGGCATCACCAATGCTTTCAGGTTCTAGCAATTTACCGCGGAATGTAGCG 1499  
Db 1261 GGCAGTTCCGGCATCACCAATGCTTTCAGGTTCTAGCAATTTACCGCGGAATGTAGCG 1320  
Qy 1500 CACCTGATGATCAACACATCATGGTTCACCAACATTCGGTTCGTTTTCAGCACTGC 1559  
Db 1321 CACCTGATGATCAACACATCATGGTTCACCAACATTCGGTTCGTTTTCAGCACTGC 1380  
Qy 1560 TTCACTACTTCCGCTGGCGTGGTTCGTTTTCGCTGAGTGAATTCGCGCAGGCTACGTCGTCC 1619  
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Db 1441 ACCACGCTTCAACCCATACCGTGCATTTACCAAGCGAATGAGTTCTCTTCCAGGAGGA 1500  
Qy 1680 AGCTGAGCAGATCAGCGCGGCGAGAAACGTCCTCAAGACTAATCAGAGATTCGGTAA 1739  
Db 1501 AGCTGAGCAGATCAGCGCGGCGAGAAACGTCCTCAAGACTAATCAGAGATTCGGTAA 1560  
Qy 1740 TAAAGGTAAATAACACTCTCTTAGGCGT 1769  
Db 1561 TAAAGGTAAATAACACTCTCTTAGGCGT 1590

## RESULT 4

US-09-103-840A-2  
; Sequence 2, Application US/09103840A  
; Patent No. 6294328  
; GENERAL INFORMATION:  
; APPLICANT: FLEISCHMAN, Robert D.  
; APPLICANT: WHITE, Owen R.  
; APPLICANT: FRASER, Claire M.  
; APPLICANT: VENTER, John C.  
; TITLE OF INVENTION: DNA SEQUENCES FOR STRAIN ANALYSIS IN MYCOBACTERIUM  
; TITLE OF INVENTION: TUBERCULOSIS  
; FILE REFERENCE: 24366-20007.00  
; CURRENT APPLICATION NUMBER: US/09/103.840A  
; CURRENT FILING DATE: 1998-06-24  
; NUMBER OF SEQ ID NOS: 2  
; SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 2  
; LENGTH: 4403765  
; TYPE: DNA  
; ORGANISM: Mycobacterium tuberculosis  
; FEATURE:  
; OTHER INFORMATION: CDC 1551  
; OTHER INFORMATION: "n" bases at various positions throughout the sequence  
; OTHER INFORMATION: represent a, t, c or g  
US-09-103-840A-2

Query Match 4.5%; Score 86.6; DB 3; Length 4403765;  
Best Local Similarity 45.6%; Pred. No. 1.3e-14;  
Matches 498; Conservative 0; Mismatches 559; Indels 36; Gaps 4;  
Qy 531 TACGATCACCATTCTTCAACCAATCGGTGTGGAGAGGAAGATGCGGTCAACGTTGTTCA 590  
Db 4180213 TACCACCATCATGTGTCTCGGCTAGCGACACACAGACACTCCGCGGTACCATCATGCG 4180272  
Qy 591 TGTGTAGGCAAGTTGACACCAACTCTCAAACTGTCTGAGGTTGACCGTTGATCCG 650  
Db 4180273 GTCGGTCCGGACCGCGTCCACTGACTACAGCCGGCTGCGCAACTCGATCGACTCGTTCA 4180332

Qy 651 TTCAATTGAGGCTGGTGCAGACCCGCTGAGGTTGCCGAGAAAAATCCCTGGACGAGTTGGA 710  
Db 4180333 GCGGATAACCTCCCGTGGCGTGCAGTCGACGAGCTACAGGCTATGGACGAGTTGAC 4180392  
Qy 711 GCAATCCCTCGCGTCTTATAGGTTTCCCTGTGCGTGTGCTGGCTGGGCAATGATGGGTGG 770  
Db 4180393 CGAAGCGGCCCACTACCCGCTGCTGCGACGCGCGGGCGCGGCTTCGCACT 4180452  
Qy 771 TGCCTGTTGCTGTGCTGTGGTGTGGATGCGAGTTTCCCTAATTTGCTTTTATACCGC 830  
Db 4180453 CGCGTGCCTCATGTTGCTCGCGGAAACCTGGCTGACCTGTGCTCTTGGCTGCGTGACGTC 4180512  
Qy 831 GTTCACGATCATTTCCACGACGTCATTTTGGGAAAGAGGGTTTGGCTACTTCTTCTCCA 890  
Db 4180513 TGGCGTGATCGACGACTGGGCGCGCTGCTGAACCGGATCGGACCCCGTTGTTCTTCCA 4180572  
Qy 891 AATGTTGTTGGTGGTTTTATGTCAGCTGCTGCAATCGATGCTTATCTTTGGCGGTT 950  
Db 4180573 GCGGTTGTTGGCGCGGGATCGGACCTTGGTGGCGGCTTACCTGATCGCCGG 4180632  
Qy 951 GCAATTTGGTCTTGAGATCAACCGAGCCAGATCATCGCATCTGGAATTTGTTGCTGTT 1010  
Db 4180633 CCA-----GGATCCGACCGCGCTGGTGGCCACCGGAATCGTTGTGCTGCT 4180677  
Qy 1011 GGCAGGTTTGACACTCGTGCATCTCTGCAGACGGCATCACGGCGCGCTCCGGTGCACAGC 1070  
Db 4180678 GTCTGGGATGACCTTGGTGGTTCGATGCAGACGCGGTCAACCGGGTACATGCTCACC GC 4180737  
Qy 1071 AAGTGCACGATTTTTCGAAACACTCTGTTTACCGCGCGGCAATGTTGCTGGCGT----- 1124  
Db 4180738 ACTCGCGCGCTTGGCGACGCGCTGTTCTGACGCGAGGATCGTCTGCGGCATCTCAT 4180797  
Qy 1125 -----GGGTTTGGGCAATTGAGTTCTTGAATCTTGCATGTCATGTTGCTGCCAT 1175  
Db 4180798 CTCGTTGGGGCGCTCACCAATGCGGCAATCCAGATCGAATGATGATGCGAGCAACCAC 4180857  
Qy 1176 GGAGTCCGCTGCAGCACTCAATTAATGCTTACATTCGCGCGCATTAATCGCTGGTGGCGT 1235  
Db 4180858 GACGCTGCGCACCCCGGGCATGCGCTACCGATTCCTCGTCCGGTAAAGCGTGGCGGCT 4180917  
Qy 1236 CACGCGAGCGGCTTTCGAGATGGGTGTTTACGCGAGTGTGCTCGGTGATTAATGGGG 1295  
Db 4180918 GTCCGGGCTGTGCTTGCATGATGCGAGCTATGCGCGCTACGTTCTGTGGCCACCGCGCG 4180977  
Qy 1296 GCTTACTGC---GCTGATGGTTCGCTGTTTATTACTCTTCGTTGTTTATTAGGCC 1352  
Db 4180978 ACTCTCGCGCGGACTTCGCGGAATGCTGCTCATCGGACTCGCGCGCGCGGTTGCGCG 4181037  
Qy 1353 CGTCTCTGCGCGCTGCGATTCGCAACAGCAGTGTGGTTTCACTGCTGTTTGTGTTGCGCG 1412  
Db 4181038 AGTGTGCGCACCTGGACCGCGGATCGGGTGGCTTCTTGGCCACCCCTGATCTCAAT 4181097  
Qy 1413 TCGAATCTTGATTCACCGTTGATGTTGGGGAATGCGCGGATCAACCAATGCTTCAGG 1472  
Db 4181098 CCGTCCGAGGCTCCCGCTTGTGTGACGGCCACCGCGGCACTCATGCGGATGCTGCGCGG 4181157  
Qy 1473 TCTAGCAATTTACCGGGAATGTACGC---CACCTGATGATCAACACACTCATGGGTTT 1529  
Db 4181158 CTTGCGGCTTTCGCTGCGGTTCGCGTTTCGCGTTTCGCGTTCAATGACACACCCGACGGCGTCT 4181217  
Qy 1530 CACCAACATTTGCGGTTGCTTTTAGCCACTGCTTCACTTCCGCTGCGGTGGTGGTGGG 1589  
Db 4181218 GACCCAGCTGCTGGAAGCGCGCGGATGCACTGCACTCGCGCTTGGCAGCGGGTGGTGGG 4181277  
Qy 1590 TGAAGTGAATGCC 1602  
Db 4181278 CGAGTTCTCGCC 4181290

## RESULT 5

US-09-103-840A-1  
; Sequence 1, Application US/09103840A



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; IMMEDIATE SOURCE:
; CLONE: ptzgt-F1s
US-08-232-463-14

Query Match          2.5%; Score 47.6; DB 1; Length 7218;
Best Local Similarity 3.6%; Pred. No. 0.00059;
Matches 14; Conservative 218; Mismatches 162; Indels 0; Gaps 0;

Qy 1057 GCTCGGTGACAGAGTGCACGATTTTCGAAACACTCCTGTTCACGGGGGCGATTGT 1116
      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 1042 GCTCGAGTCGAGGAGCTTGGATYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY 1101

Qy 1117 GCTGGCGGTGTTGGCGATTCAGCTTCTGAAATCTTGCAATGTCATGTCCTGCCATG 1176
      : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 1102 YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY 1161

Qy 1177 GAGTCGCTGAGACACCTAATATTCGTCATATTCGCCCGCATATCGCTGGCGGTC 1236
      : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 1162 YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY 1221

Qy 1237 ACCGAGCGGCTTCGCGAGTGGTGTTCACGCGAGTGGTCTCGGTGATTATTCGCGGG 1296
      : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 1222 YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY 1281

Qy 1297 CTTACTCGCTGATGGTCTCGCTTTTATACCTCTCTGTTTATTTAGGCCCGGTC 1356
      : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 1282 YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY 1341

Qy 1357 TCTGCGCTGCGATGCTGCAACAGCAGTGGTTCACTGCTGCTTCTGCGCGTGA 1416
      : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 1342 YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY 1401

Qy 1417 TCTTGATTCACCGTTCGATGTCGCGATTGCCG 1450
      : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 1402 YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYG 1435

RESULT 7
US-08-956-171E-4234/c
; Sequence 4234, Application US/08956171E
; Patent No. 6593114
; GENERAL INFORMATION:
; APPLICANT: Charles Kunsch
; Gil H. Choi
; Patrick S. Dillon
; Craig A. Rozen
; Steven C. Barash
; Michael R. Fannon
; TITLE OF INVENTION: Staphylococcus aureus Polynucleotides and Sequences
; NUMBER OF SEQUENCES: 5256
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Human Genome Sciences, Inc.
; STREET: 9410 Key West Avenue
; CITY: Rockville
; STATE: Maryland
; COUNTRY: USA
; ZIP: 20850
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette, 3.50 inch, 1.4Mb storage
; COMPUTER: HP Vectra 486/33
; OPERATING SYSTEM: MSDOS version 6.2
; SOFTWARE: ASCII Text
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/956,171E
; FILING DATE: 20-Oct-1997
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 60/009,861
; FILING DATE: January 5, 1996
; APPLICATION NUMBER: 08/781,986
; FILING DATE: January 3, 1997
; ATTORNEY/AGENT INFORMATION:
; NAME: Mark J. Hyman

Query Match          2.4%; Score 46.6; DB 4; Length 400;
Best Local Similarity 61.9%; Pred. No. 0.00022;
Matches 73; Conservative 0; Mismatches 45; Indels 0; Gaps 0;

Qy 32 ATCCCCCCCCCTTTGACCTGTGTTATTGAGCTGGAGAGAGACTTGAACCTCTCAACCTAC 91
      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 298 AGCCCAATCGTTACCCCTCCATAAATGTCGCCGCCAGAGGACTTGAACCCCAACCTAC 239

Qy 92 GCATTACAGTCGCTGGCTGCCAATTCGCCACTCCAGCACCGCAGATGCTGATGA 149
      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 238 TGATTACAAGTCAGTTGCTCTACCAATTGAGCTAGGCGCGCTAAGAAATGGTTTCAGGA 181

RESULT 8
US-08-781-986A-4234/c
; Sequence 4234, Application US/08781986A
; Patent No. 6737248
; GENERAL INFORMATION:
; APPLICANT: Charles Kunsch
; TITLE OF INVENTION: Staphylococcus aureus Polynucleotides and Sequences
; NUMBER OF SEQUENCES: 5255
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Human Genome Sciences, Inc.
; STREET: 9410 Key West Avenue
; CITY: Rockville
; STATE: Maryland
; COUNTRY: USA
; ZIP: 20850
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette, 3.50 inch, 1.4Mb storage
; COMPUTER: HP Vectra 486/33
; OPERATING SYSTEM: MSDOS version 6.2
; SOFTWARE: ASCII Text
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/781,986A
; FILING DATE:
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Benson, Bob
; REGISTRATION NUMBER: 30,446
; REFERENCE/DOCKET NUMBER: PB248PP
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (301) 309-8504
; TELEFAX: (301) 309-8512
; INFORMATION FOR SEQ ID NO: 4234:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 400 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: double
; TOPOLOGY: linear
US-08-781-986A-4234

Query Match          2.4%; Score 46.6; DB 4; Length 400;
Best Local Similarity 61.9%; Pred. No. 0.00022;
Matches 73; Conservative 0; Mismatches 45; Indels 0; Gaps 0;
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Qy 32 ATCCCCCCTTTGACCTGGTGTATTGAGCTGAGAGAGACTTGAACCTCTCAACCTAC 91
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Db 298 AGCCCACTGCTTACCCCTCCATAAATGTCGCGCCAGAGACTTGAACCCCAACCTAC 239
    |||||
Qy 92 GCATTACAAGTGCCTGGCTGCCAATTGGCCCACTCCAGCACGCGAGATGCTGATCA 149
    |||||
Db 238 TGATTACAAGTCAGTTGCTTACCAATTGAGCTAGGCGGCTAAGAAATGGTTTCAGGA 181
    |||||

RESULT 9
US-09-198-452A-1
; Sequence 1, Application US/09198452A
; Patent No. 655294
; GENERAL INFORMATION:
; APPLICANT: Grifais, R.
; TITLE OF INVENTION: Chlamydia pneumoniae genomic sequence and polypeptides, fragments
; thereof and uses thereof, in particular for the diagnosis, prevention
; TITLE OF INVENTION: thereof and uses thereof, in particular for the diagnosis, prevention
; TITLE OF INVENTION: and treatment of infection
; FILE REFERENCE: 9710-003-999
; CURRENT APPLICATION NUMBER: US/09/198,452A
; CURRENT FILING DATE: 1998-11-24
; NUMBER OF SEQ ID NOS: 6849
; SEQ ID NO 1
; LENGTH: 1230025
; TYPE: DNA
; ORGANISM: Chlamydia pneumoniae
; FEATURE:
; NAME/KEY: misc feature
; LOCATION: (1)..(15000)
; OTHER INFORMATION: n=a or c or g or t
; NAME/KEY: misc feature
; LOCATION: (15001)..(30000)
; OTHER INFORMATION: n=a or c or g or t
; NAME/KEY: misc feature
; LOCATION: (30001)..(45000)
; OTHER INFORMATION: n=a or c or g or t
; NAME/KEY: misc feature
; LOCATION: (45001)..(60000)
; OTHER INFORMATION: n=a or c or g or t
; NAME/KEY: misc feature
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; NAME/KEY: misc feature
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; OTHER INFORMATION: n=a or c or g or t
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; LOCATION: (360001)..(375000)
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; LOCATION: (405001)..(420000)
; OTHER INFORMATION: n=a or c or g or t
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; OTHER INFORMATION: n=a or c or g or t
; NAME/KEY: misc feature
; LOCATION: (435001)..(450000)
; OTHER INFORMATION: n=a or c or g or t
; NAME/KEY: misc feature
; LOCATION: (450001)..(465000)
; OTHER INFORMATION: n=a or c or g or t
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; LOCATION: (510001)..(525000)
; OTHER INFORMATION: n=a or c or g or t
; NAME/KEY: misc feature
; LOCATION: (525001)..(540000)
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; NAME/KEY: misc feature
; LOCATION: (570001)..(585000)
; OTHER INFORMATION: n=a or c or g or t
; NAME/KEY: misc feature
; LOCATION: (585001)..(600000)
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NAME/KEY: misc feature  
LOCATION: (600001)..(615000)  
OTHER INFORMATION: n=a or c or g or t  
NAME/KEY: misc feature  
LOCATION: (615001)..(630000)  
OTHER INFORMATION: n=a or c or g or t  
NAME/KEY: misc feature  
LOCATION: (630001)..(645000)  
OTHER INFORMATION: n=a or c or g or t  
NAME/KEY: misc feature  
LOCATION: (645001)..(660000)  
OTHER INFORMATION: n=a or c or g or t  
NAME/KEY: misc feature  
LOCATION: (660001)..(675000)  
OTHER INFORMATION: n=a or c or g or t  
NAME/KEY: misc feature  
LOCATION: (675001)..(690000)  
OTHER INFORMATION: n=a or c or g or t  
NAME/KEY: misc feature  
LOCATION: (690001)..(705000)  
OTHER INFORMATION: n=a or c or g or t  
NAME/KEY: misc feature  
LOCATION: (705001)..(720000)  
OTHER INFORMATION: n=a or c or g or t  
NAME/KEY: misc feature  
LOCATION: (720001)..(735000)  
OTHER INFORMATION: n=a or c or g or t  
NAME/KEY: misc feature  
LOCATION: (735001)..(750000)  
OTHER INFORMATION: n=a or c or g or t  
NAME/KEY: misc feature  
LOCATION: (750001)..(765000)  
OTHER INFORMATION: n=a or c or g or t  
NAME/KEY: misc feature  
LOCATION: (765001)..(780000)  
OTHER INFORMATION: n=a or c or g or t  
NAME/KEY: misc feature  
LOCATION: (780001)..(795000)  
OTHER INFORMATION: n=a or c or g or t  
NAME/KEY: misc feature  
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OTHER INFORMATION: n=a or c or g or t  
NAME/KEY: misc feature  
LOCATION: (810001)..(825000)  
OTHER INFORMATION: n=a or c or g or t  
NAME/KEY: misc feature  
LOCATION: (825001)..(840000)  
OTHER INFORMATION: n=a or c or g or t  
NAME/KEY: misc feature  
LOCATION: (840001)..(855000)  
OTHER INFORMATION: n=a or c or g or t  
NAME/KEY: misc feature  
LOCATION: (855001)..(870000)  
OTHER INFORMATION: n=a or c or g or t  
NAME/KEY: misc feature  
LOCATION: (870001)..(885000)  
OTHER INFORMATION: n=a or c or g or t  
NAME/KEY: misc feature  
LOCATION: (885001)..(900000)  
OTHER INFORMATION: n=a or c or g or t  
NAME/KEY: misc feature  
LOCATION: (900001)..(915000)  
OTHER INFORMATION: n=a or c or g or t  
NAME/KEY: misc feature

Query Match 2.4%; Score 45.8; DB 4; Length 1230025;  
Best Local Similarity 76.7%; Pred. No. 0.046;  
Matches 56; Conservative 0; Mismatches 17; Indels 0; Gaps 0;  
  
Qy 61 GCTGAGAGAGACTTGAACCTCAACCTACGATTACGATTGCGTTCGCAATTG 120  
Db 303710 GCTGAGAGAGAAATGAACCTCAACCGTTTCGATTACAAATCGAATGCTCTGCAATTG 303769

Qy 121 CGCCACTCCAGCA 133  
Db 303770 AGCTACTCCAGCA 303782

RESULT 10

US-08-956-171E-4023  
; Sequence 4023, Application US/08956171E  
; Patent No. 6593114  
; GENERAL INFORMATION:  
; APPLICANT: Charles Kunsch  
; Gil H. Choi  
; Patrick S. Dillon  
; Craig A. Rosen  
; Steven C. Barash  
; Michael R. Fannon  
; TITLE OF INVENTION: Staphylococcus aureus Polynucleotides and Sequences  
; NUMBER OF SEQUENCES: 5256  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Human Genome Sciences, Inc.  
; STREET: 9410 Key West Avenue  
; CITY: Rockville  
; STATE: Maryland  
; COUNTRY: USA  
; ZIP: 20850  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Diskette, 3.50 inch, 1.4Mb storage  
; COMPUTER: HP Vectra 486/33  
; OPERATING SYSTEM: MSDOS version 6.2  
; SOFTWARE: ASCII Text  
; CURRENT APPLICATION DATA:  
; FILING DATE: 20-Oct-1997  
; APPLICATION NUMBER: US/08/956.171E  
; CLASSIFICATION: <Unknown>  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: 60/009,861  
; FILING DATE: January 5, 1996  
; APPLICATION NUMBER: 08/781,986  
; FILING DATE: January 3, 1997  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Mark J. Hyman  
; REGISTRATION NUMBER: 46,789  
; REFERENCE/DOCKET NUMBER: PB248P1  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (240) 314-1224  
; TELEFAX: (301) 309-8439  
; INFORMATION FOR SEQ ID NO: 4023:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 381 base pairs  
; TYPE: nucleic acid  
; STRANDEDNESS: double  
; TOPOLOGY: linear  
; SEQUENCE DESCRIPTION: SEQ ID NO: 4023:

Query Match 2.4%; Score 45.6; DB 4; Length 381;  
Best Local Similarity 73.1%; Pred. No. 0.00043;  
Matches 57; Conservative 0; Mismatches 21; Indels 0; Gaps 0;

Qy 56 ATTGAGCTGGAGAGAGACTTGAACCTCTCAACCTACGATTACGATTGCGTTCGCTGCC 115  
Db 87 ATGGGCGGCGCAGAGGACTTGAACCCCAACCTACTGATTACAAGTCAGTTGCTCTACC 146  
Qy 116 AATTGGCGCACTCCAGCA 133  
Db 147 AATTGAGCTAGCGCGCA 164

RESULT 11

US-08-781-986A-4023  
; Sequence 4023, Application US/08781986A  
; Patent No. 6737248

```

; GENERAL INFORMATION:
; APPLICANT: Charles Kunsch
; TITLE OF INVENTION: Staphylococcus aureus Polynucleotides and Sequences
; NUMBER OF SEQUENCES: 5255
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Human Genome Sciences, Inc.
; STREET: 9410 Key West Avenue
; CITY: Rockville
; STATE: Maryland
; COUNTRY: USA
; ZIP: 20850
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette, 3.50 inch, 1.4Mb storage
; COMPUTER: HP Vectra 486/33
; OPERATING SYSTEM: MSDOS version 6.2
; SOFTWARE: ASCII Text
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/781,986A
; FILING DATE:
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Benson, Bob
; REGISTRATION NUMBER: 30,446
; REFERENCE/DOCKET NUMBER: PB248PP
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (301) 309-8504
; TELEFAX: (301) 309-8512
; INFORMATION FOR SEQ ID NO: 4023:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 381 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: double
; TOPOLOGY: linear
; US-08-781-986A-4023

Query Match 2.4%; Score 45.6; DB 4; Length 381;
Best Local Similarity 73.1%; Pred. No. 0.00043;
Matches 57; Conservative 0; Mismatches 21; Indels 0; Gaps 0;

Qy 56 ATTGAGCTGGAGAGACTTGTAACCTCAACTGCGATTACAAGTGGTTGCGCTGCC 115
Db 87 ATGGGNGGCCAGAGAGACTTGAAACCCCAACTACTGATTACAAGTCAGTTGCTCTACC 146
Qy 116 AATTGCGCCACTCCAGCA 133
Db 147 AATTGAGCTAGGCCGCA 164

RESULT 12
US-08-956-171E-4566
; Sequence 4566, Application US/08956171E
; Patent No. 6593114
; GENERAL INFORMATION:
; APPLICANT: Charles Kunsch
; Gil H. Choi
; Patrick S. Dillon
; Craig A. Rosen
; Steven C. Barash
; Michael R. Fannon
; TITLE OF INVENTION: Staphylococcus aureus Polynucleotides and Sequences
; NUMBER OF SEQUENCES: 5256
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Human Genome Sciences, Inc.
; STREET: 9410 Key West Avenue
; CITY: Rockville
; STATE: Maryland
; COUNTRY: USA
; ZIP: 20850
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette, 3.50 inch, 1.4Mb storage

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CELESTYT/T-000-00-00



Db 132 AATTGAGCTAGGCGGCA 149

Search completed: January 14, 2005, 10:08:58  
Job time : 176.998 secs

GenCore version 5.1.6  
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OM nucleic - nucleic search, using sw model

Run on: January 14, 2005, 09:56:14 ; Search time 969.85 Seconds  
(without alignments)  
11309.899 Million cell updates/sec

Title: US-09-963-521-3

Perfect score: 1909

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Scoring table: IDENTITY NUC

Gapop 10.0 , Gapext 1.0

Searched: 4300275 seqs, 2872944193 residues

Total number of hits satisfying chosen parameters: 8600550

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Listing first 45 summaries

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Published Applications NA:\*

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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4	1909	100.0	1909	9	US-09-783-388-3
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6	1909	100.0	1909	17	US-10-224-574-11
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ALIGNMENTS

RESULT 1

US-09-951-536-3

; Sequence 3, Application US/09951536

; Patent No. US20020107378A1

; GENERAL INFORMATION:

; APPLICANT: ZIEGLER, PETRA

; APPLICANT: EGGLING, LOTHAR

; APPLICANT: SAHM, HERMANN

; APPLICANT: THIERBACH, GEORG

; TITLE OF INVENTION: NEW NUCLEOTIDE SEQUENCES CODING FOR THE THREE GENE AND

; TITLE OF INVENTION: PROCESS FOR THE ENZYMIC PRODUCTION OF L-THREONINE

; FILE REFERENCE: 21123/282414/MAS

; CURRENT APPLICATION NUMBER: US/09/951,536

; PRIOR FILING DATE: 2001-09-14

; PRIOR FILING DATE: 1999-11-01

; NUMBER OF SEQ ID NOS: 10

; SOFTWARE: PatentIn Ver. 2.1

; SEQ ID NO 3

; LENGTH: 1909

; TYPE: DNA

; ORGANISM: Corynebacterium glutamicum

; FEATURE:

; NAME/KEY: CDS

; LOCATION: (280)..(1746)

; OTHER INFORMATION: thrE-Gen

US-09-951-536-3

Query Match 100.0%; Score 1909; DB 9; Length 1909;

Best Local Similarity 100.0%; Pred. No. 0;

Matches 1909; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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## RESULT 2

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; Sequence 3, Application US/09963521  
; Patent No. US20020146781A1  
; GENERAL INFORMATION:  
; APPLICANT: ZIEGLER, PETRA  
; APPLICANT: EGELING, LOTHAR  
; APPLICANT: SAHM, HERMANN  
; TITLE OF INVENTION: NEW NUCLEOTIDE SEQUENCES CODING FOR THE THREE GENE  
; TITLE OF INVENTION: AND PROCESS FOR THE ENZYMATIC PRODUCTION OF  
; TITLE OF INVENTION: L-THREONINE USING CORYNEFORM BACTERIA  
; FILE REFERENCE: 21123/282413/MAS  
; CURRENT APPLICATION NUMBER: US/09/963,521  
; CURRENT FILING DATE: 2001-09-27  
; PRIOR APPLICATION NUMBER: 09/431,099  
; PRIOR FILING DATE: 1999-11-01  
; PRIOR APPLICATION NUMBER: DE 199 41 478.5  
; PRIOR FILING DATE: 1999-09-01  
; NUMBER OF SEQ ID NOS: 10

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; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 3
; LENGTH: 1909
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (280)..(1746)
; OTHER INFORMATION: thrE-Gen
US-09-963-521-3

Query Match      100.0%; Score 1909; DB 9; Length 1909;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1909; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy 1861 CCCAGAAATCCCTTCAACGCTGTTGAAGAGGAAACCGCAGCCGGGTACCG 1909
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; Sequence 3, Application US/09834721
; Patent No. US2002015551A1
; GENERAL INFORMATION:
; APPLICANT: RIEPING, MECHTHILD
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF L-THREONINE
; FILE REFERENCE: 21123/280169/MAS
; CURRENT APPLICATION NUMBER: US/09/834, 721
; CURRENT FILING DATE: 2001-04-16
; PRIOR APPLICATION NUMBER: DE 100 26 494.8
; PRIOR FILING DATE: 2000-05-27
; PRIOR APPLICATION NUMBER: DE 101 02 823.7
; PRIOR FILING DATE: 2001-01-23
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 3
; LENGTH: 1909
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
; FEATURE:
; OTHER INFORMATION: ATCC13032
; NAME/KEY: CDS
; LOCATION: (280)..(1746)
; OTHER INFORMATION: thrE gene
US-09-834-721-3

Query Match 100.0%; Score 1909; DB 9; Length 1909;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1909; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db |||||
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Qy 121 CGCACCTCAGCAGCGGAGTCTGATGATCAACCACTACGAATACGTATCTTAGCGTAT 180
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Qy 181 GTGTACATCAAAATGGAATTCGGGCTAGAGTATCTGTGAAACCGTGCATAAAGCACTG 240
Db |||||
Qy 181 GTGTACATCAAAATGGAATTCGGGCTAGAGTATCTGTGAAACCGTGCATAAAGCACTG 240
Db |||||
Qy 241 TGATTTGACTCTTTTCTTCCAAATGTTTTCCAGCGGATGTTGAGTTTTGCGACCCCTT 300
Db |||||
Qy 241 TGATTTGACTCTTTTCTTCCAAATGTTTTCCAGCGGATGTTGAGTTTTGCGACCCCTT 300
Db |||||
Qy 301 CGTGGCGCATTTCAACAGTTGACGCTGCAAAAGCGCACCTCGCCATCGCCACTAGCC 360
Db |||||
Qy 301 CGTGGCGCATTTCAACAGTTGACGCTGCAAAAGCGCACCTCGCCATCGCCACTAGCC 360
Db |||||
Qy 361 CCGATTGATCTCACTGACCATAGTCAAGTGGCGGCTGTGATGAATTTGGCTGCGAGAATT 420
Db |||||
Qy 361 CCGATTGATCTCACTGACCATAGTCAAGTGGCGGCTGTGATGAATTTGGCTGCGAGAATT 420
Db |||||
Qy 421 GCGCATATTTTCTTCTTCAAGTACGTCACCAATAGTAGTACCAAGGTACAAGTTGCGAGCA 480
Db |||||
Qy 421 GCGCATATTTTCTTCTTCAAGTACGTCACCAATAGTAGTACCAAGGTACAAGTTGCGAGCA 480
Db |||||
Qy 481 GTGACCTCTGCTAGCGTTTCTTCAAGTACGTCACCAATAGTAGTACCAAGGTACAAGTTGCGAGCA 540
Db |||||
Qy 481 GTGACCTCTGCTAGCGTTTCTTCAAGTACGTCACCAATAGTAGTACCAAGGTACAAGTTGCGAGCA 540
Db |||||
Qy 541 ATCTTCAACCAATCGGTGTGAGAGGAAGATCGCGTCAACCGTTCATGTTGTAGGC 600
Db |||||
Qy 541 ATCTTCAACCAATCGGTGTGAGAGGAAGATCGCGTCAACCGTTCATGTTGTAGGC 600
Db |||||
Qy 601 AAGTTGGACCAACTTCTCAAACTGTCTGAGTTGACCGTTTGTGATCCGTTCCATTGAG 660
Db |||||
Qy 601 AAGTTGGACCAACTTCTCAAACTGTCTGAGTTGACCGTTTGTGATCCGTTCCATTGAG 660
Db |||||

661 GCTGGTGCACCCCGCTGAGGTTGCCGAGAAATCTCGACAGTTGGAGCAATCCCCCT 720
661 GCTGGTGCACCCCGCTGAGGTTGCCGAGAAATCTCGACAGTTGGAGCAATCCCCCT 720
721 GCGTCTTATGTTTCCCTGTTGGTTCGTTGGTGGCAATGATGGTGGTGTGCTTGGCT 780
721 GCGTCTTATGTTTCCCTGTTGGTTCGTTGGTGGCAATGATGGTGGTGTGCTTGGCT 780
781 GTGCTGTGGGTGGTGGATGGAGGTTCCCTAAATGCTTTTATTTACCGGTTACGATC 840
781 GTGCTGTGGGTGGTGGATGGAGGTTCCCTAAATGCTTTTATTTACCGGTTACGATC 840
841 ATTGCCACGACGTCATTTTGGGAAAGAGGGTTTGCTACTTTCTTCCAAAATGTTGTT 900
841 ATTGCCACGACGTCATTTTGGGAAAGAGGGTTTGCTACTTTCTTCCAAAATGTTGTT 900
901 GGTGGTTTTATTTGCCACGCTGCTGCATCGAATGCTTATTTCTTTGGCGTTGCAATTTGGT 960
901 GGTGGTTTTATTTGCCACGCTGCTGCATCGAATGCTTATTTCTTTGGCGTTGCAATTTGGT 960
961 CTTGAGATCAAAACCGAGCCAGATCATCGATCTGGAATTTGTTGCTGTTGGCAGGTTTG 1020
961 CTTGAGATCAAAACCGAGCCAGATCATCGATCTGGAATTTGTTGCTGTTGGCAGGTTTG 1020
1021 ACACTCGTCAATCTCTGACAGGCGCATCACGGGCGCTCCGGTGACAGCAAGTGACAGA 1080
1021 ACACTCGTCAATCTCTGACAGGCGCATCACGGGCGCTCCGGTGACAGCAAGTGACAGA 1080
1081 TTTTTCGAAACACTCTCTGTTTACCGGCGCATTTGTTGCTGGCGTTGGGCAATTCAG 1140
1081 TTTTTCGAAACACTCTCTGTTTACCGGCGCATTTGTTGCTGGCGTTGGGCAATTCAG 1140
1141 CTTTCTGAATCTTGCATGTCTGCTGCTGCATCGGAGTCCGCTGACAGCACCTAATTTAT 1200
1141 CTTTCTGAATCTTGCATGTCTGCTGCTGCATCGGAGTCCGCTGACAGCACCTAATTTAT 1200
1201 TCGTCTACATTCGCGCGCATTTATCGTGTGGCGTCAACGACGCGCTTCGAGTGGGT 1260
1201 TCGTCTACATTCGCGCGCATTTATCGTGTGGCGTCAACGACGCGCTTCGAGTGGGT 1260
1261 TGTTACGCGAGTGGTCTCGGTGATTTATTCGGGGGCTTACTGCGGTGATGGGTTCGCG 1320
1261 TGTTACGCGAGTGGTCTCGGTGATTTATTCGGGGGCTTACTGCGGTGATGGGTTCGCG 1320
1321 TTTTATTACCTCTTCTGTTGTTTATTTAGGCCCGCTCTGCGCGTGGGATTCGCAACA 1380
1321 TTTTATTACCTCTTCTGTTGTTTATTTAGGCCCGCTCTGCGCGTGGGATTCGCAACA 1380
1381 GCAGTTGGTTTCACTGGTGGTTTGTGTCGCGTGCATTTCTTGATTCACCGTTGATTTGTG 1440
1381 GCAGTTGGTTTCACTGGTGGTTTGTGTCGCGTGCATTTCTTGATTCACCGTTGATTTGTG 1440
1441 GCGATTGCGGGATCACCAATGCTTCAGGTTCTAGCAATTTACCGGGAATGACGCC 1500
1441 GCGATTGCGGGATCACCAATGCTTCAGGTTCTAGCAATTTACCGGGAATGACGCC 1500
1501 ACCCTGAATGATCAAAACACTCATGGGTTTCCACCAATTCGGGTTGCTTTAGCCACTGCT 1560
1501 ACCCTGAATGATCAAAACACTCATGGGTTTCCACCAATTCGGGTTGCTTTAGCCACTGCT 1560
1561 TCATCACTTCGCGTGGCGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGT 1620
1561 TCATCACTTCGCGTGGCGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGT 1620
1621 CCGAGTTTCAACCCATACCGTGCATTTTACCAAGCGCAATGAGTTCTCTTCCAGGAGGAA 1680
1621 CCGAGTTTCAACCCATACCGTGCATTTTACCAAGCGCAATGAGTTCTCTTCCAGGAGGAA 1680
1681 GCTGAGCAGAATCAGCGCCCGGAGAGAAAACGTCCTCAAGACTAATCAGAGATTCCGTAAT 1740
1681 GCTGAGCAGAATCAGCGCCCGGAGAGAAAACGTCCTCAAGACTAATCAGAGATTCCGTAAT 1740
1741 AAAAGGTAAATCAACCTGCTTAGCGCTCTTTGCGTTAATAGCGTAGAATACGGGTC 1800
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Db	1741	AAAAGGTAAAAATCAACTCGTCTTAGGCGCTCTTTCCGTTAAATACGTAGAAATATCGGGTC	1800
Qy	1801	GATCGCTTTTAAACACACTCAGAGAGATCCTTGC CGGCCAAAATCAGGACACTCGTCCAC	1860
Db	1801	GATCGCTTTTAAACACACTCAGAGAGATCCTTGC CGGCCAAAATCAGGACACTCGTCCAC	1860
Qy	1861	CCGAGATCCCTTCA CGCTGTTGAAGAGGAAACCGCAGCGGGGTACCG	1909
Db	1861	CCGAGATCCCTTCA CGCTGTTGAAGAGGAAACCGCAGCGGGGTACCG	1909

## RESULT 4

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US-09-783-388-3
; Sequence 3, Application US/09783388
; Patent No. US20020168731A1
; GENERAL INFORMATION:
; APPLICANT: Ziegler, Petra
; APPLICANT: Eggeling, Lothar
; APPLICANT: Samm, Hermann
; APPLICANT: Thierbach, Georg
; TITLE OF INVENTION: NEW NUCLEOTIDE SEQUENCES CODING FOR THE THRE GENE AND
; TITLE OF INVENTION: PROCESS FOR
; TITLE OF INVENTION: ENZYMATIC PRODUCTION OF L-THREONINE USING CORYNEFORM BACTERIA
; FILE REFERENCE: 21123/277066
; CURRENT APPLICATION NUMBER: US/09/783,388
; CURRENT FILING DATE: 2001-02-15
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 3
; LENGTH: 1909
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum ATCC13032
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (280)..(1746)
; US-09-783-388-3

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Query Match	100.0%	Score 1909	DB 9	Length 1909
Best Local Similarity	100.0%	Pred. No. 0		
Matches 1909	Conservative 0	Mismatches 0	Indels 0	Gaps 0
Qy	1	AGCTTGATGCCTGCAGGTCGACTCTAGAGGATCCCCCCTTTGACCTGGTGTATTGA	60	
Db	1	AGCTTGATGCCTGCAGGTCGACTCTAGAGGATCCCCCCTTTGACCTGGTGTATTGA	60	
Qy	61	GCTGGAGAAGAGACTTGAATCTCTCAACTACGCAATTACAAAGTGGTTCGCTGCCAATTG	120	
Db	61	GCTGGAGAAGAGACTTGAATCTCTCAACTACGCAATTACAAAGTGGTTCGCTGCCAATTG	120	
Qy	121	CGCCACTCCAGCACCGCAGATGCTGATGATCAACAACTACGAAATACGTATCTTTAGCGTAT	180	
Db	121	CGCCACTCCAGCACCGCAGATGCTGATGATCAACAACTACGAAATACGTATCTTTAGCGTAT	180	
Qy	181	GTGTACATCAATGGAATTCGGGGCTAGAGTATCTGGTGAAACGTCGATAAACGACCTG	240	
Db	181	GTGTACATCAATGGAATTCGGGGCTAGAGTATCTGGTGAAACGTCGATAAACGACCTG	240	
Qy	241	TGATTGACTCTTTTTCTCTTGCAAAATGTTTTCCAGCGGATGTTGAGTTTTCGACACCTT	300	
Db	241	TGATTGACTCTTTTTCTCTTGCAAAATGTTTTCCAGCGGATGTTGAGTTTTCGACACCTT	300	
Qy	301	CGTGGCGCATTTTCAACAGTTTGACGCTGCAAAAGCCGACCTCCGCCATCGCCACTAGCC	360	
Db	301	CGTGGCGCATTTTCAACAGTTTGACGCTGCAAAAGCCGACCTCCGCCATCGCCACTAGCC	360	
Qy	361	CCGATTTGATCTCACTGACCATAGTCAAGTGGCCGGTGTGATGAATTTGGCTGCGAGAAAT	420	
Db	361	CCGATTTGATCTCACTGACCATAGTCAAGTGGCCGGTGTGATGAATTTGGCTGCGAGAAAT	420	
Qy	421	GGCGATATTTTGCTTTCTTCAGGTGACGTCAAAATAGTGACACCAAGGTACAAAGTTCGAGCA	480	
Db	421	GGCGATATTTTGCTTTCTTCAGGTGACGTCAAAATAGTGACACCAAGGTACAAAGTTCGAGCA	480	

Qy	481	GTGACCTCTCGGTACGGTTTGTA	CTACACGACGTGGATATCACGTTGAAATACGATCACC	540
Db	481	GTGACCTCTCGGTACGGTTTGTA	CTACACGACGTGGATATCACGTTGAAATACGATCACC	540
Qy	541	ATCTTCACCAACATCGGTGTGGAGAGCAAGATCCCGGTCAACGCTGTTT	CATGCTGTTT	600
Db	541	ATCTTCACCAACATCGGTGTGGAGAGCAAGATCCCGGTCAACGCTGTTT	CATGCTGTTT	600
Qy	601	AAGTTGGACACCAACTTCTCAAAC	TGTCTGAGGTTGACCGTTTGATCCGTTCCATTTCAG	660
Db	601	AAGTTGGACACCAACTTCTCAAAC	TGTCTGAGGTTGACCGTTTGATCCGTTCCATTTCAG	660
Qy	661	GCTGTTGCGACCCGCTGAGGTTGCGGAGAAATCCTGACCGAGTTGGAGCAATCCCCT		720
Db	661	GCTGTTGCGACCCGCTGAGGTTGCGGAGAAATCCTGACCGAGTTGGAGCAATCCCCT		720
Qy	721	GCCTCTTATGTTTCCCTGTTGCTTGGCTGGGCAATGATGGGTGGTGTCTGTGCT		780
Db	721	GCCTCTTATGTTTCCCTGTTGCTTGGCTGGGCAATGATGGGTGGTGTCTGTGCT		780
Qy	781	GTGCTGTTTGGGTGGTGATGGCAGGTTTCCCTAATTGCCTTTATATACCGGGTTACGATC		840
Db	781	GTGCTGTTTGGGTGGTGATGGCAGGTTTCCCTAATTGCCTTTATATACCGGGTTACGATC		840
Qy	841	ATTGCCACGACGTCATTTTTTGGGAAAGAGGGTTTGCCTACTTTCTTCCAAAATGTTGTT		900
Db	841	ATTGCCACGACGTCATTTTTTGGGAAAGAGGGTTTGCCTACTTTCTTCCAAAATGTTGTT		900
Qy	901	GGTGGTTTTATGCCACGCTCTGCAATCGATGCTTATTTCTTTGGCGTTGCAATTTGGT		960
Db	901	GGTGGTTTTATGCCACGCTCTGCAATCGATGCTTATTTCTTTGGCGTTGCAATTTGGT		960
Qy	961	CTTGAGATCAAAACCGAGCCAGATCATCGCATCTGGAAATGTTCTGCTGTTTGGCAGGTTTG		1020
Db	961	CTTGAGATCAAAACCGAGCCAGATCATCGCATCTGGAAATGTTCTGCTGTTTGGCAGGTTTG		1020
Qy	1021	ACACTCGTCAATCTCTTGCAAGGACGGCATCACGGGCGCTCCGGTGACAGCAAGTGACACGA		1080
Db	1021	ACACTCGTCAATCTCTTGCAAGGACGGCATCACGGGCGCTCCGGTGACAGCAAGTGACACGA		1080
Qy	1081	TTTTTGGAAACACTCTGTTTACCGCGGCAATTTGCTGGCGTGGGTTTGGCATTTCAG		1140
Db	1081	TTTTTGGAAACACTCTGTTTACCGCGGCAATTTGCTGGCGTGGGTTTGGCATTTCAG		1140
Qy	1141	CTTCTCGAAATCTTGCAATGTCATGTTGCCCTGCCATCGAGTCCGCTCGCAGCACCTAATAT		1200
Db	1141	CTTCTCGAAATCTTGCAATGTCATGTTGCCCTGCCATCGAGTCCGCTCGCAGCACCTAATAT		1200
Qy	1201	TCGCTCATATTCGCCCGCATTTATCGCTGTFGGGCTCACCGCAGCGGCTTCGAGTGGGT		1260
Db	1201	TCGCTCATATTCGCCCGCATTTATCGCTGTFGGGCTCACCGCAGCGGCTTCGAGTGGGT		1260
Qy	1261	TGTTAGCGGAGTGGTCTCGGTGATTTATGCGGGCTTACTCGCGCTGATGGGTTCTGCG		1320
Db	1261	TGTTAGCGGAGTGGTCTCGGTGATTTATGCGGGCTTACTCGCGCTGATGGGTTCTGCG		1320
Qy	1321	TTTTTATACCTCTTCTGTTGTTATTTAGGCCCGCTCTCTCGCGCTCGATGCTGCAACA		1380
Db	1321	TTTTTATACCTCTTCTGTTGTTATTTAGGCCCGCTCTCTCGCGCTCGATGCTGCAACA		1380
Qy	1381	GCAGTTGGTTTTACTGTTGGTTTTGCTTGGCCGTCGATCTTGATTCACCGTTGATGTTG		1440
Db	1381	GCAGTTGGTTTTACTGTTGGTTTTGCTTGGCCGTCGATCTTGATTCACCGTTGATGTTG		1440
Qy	1441	GCATTTGCCGGCATCACCAATGCTTCCAGGTC	TAGCAATTTACCGCGGAATGTACGCC	1500
Db	1441	GCATTTGCCGGCATCACCAATGCTTCCAGGTC	TAGCAATTTACCGCGGAATGTACGCC	1500
Qy	1501	ACCCTGAATGATCAAAACATCATGGGTTTCA	CCAAATTTGCGGTTGCTTTAGCCACTGCT	1560
Db	1501	ACCCTGAATGATCAAAACATCATGGGTTTCA	CCAAATTTGCGGTTGCTTTAGCCACTGCT	1560

Qy	1561	TCATCACTTCGCGGTGCGGTGTTTTCGGGTGAGTGGATTCCGCGCAGGCTACGTCGTCCA	1620
Db	1561	TCATCACTTCGCGGTGCGGTGTTTTCGGGTGAGTGGATTCCGCGCAGGCTACGTCGTCCA	1620
Qy	1621	CCAGCGTTCAACCCATACCGTGCATTTACCAAGGCGGAATCAGATTCTCCTTCCAGGAGGAA	1680
Db	1621	CCAGCGTTCAACCCATACCGTGCATTTACCAAGGCGGAATCAGATTCTCCTTCCAGGAGGAA	1680
Qy	1681	GCTGAGCAGAATCAGCGCCGGCAGAGAAAAGTCCAAAGACTAATCAGAGATTGCGTAAAT	1740
Db	1681	GCTGAGCAGAATCAGCGCCGGCAGAGAAAAGTCCAAAGACTAATCAGAGATTGCGTAAAT	1740
Qy	1741	AAAAGGTAAAAATCAACCTGCTTAGGCGGTCTTTTCGCTTAAATAGCGTAGAATAATCGGGTC	1800
Db	1741	AAAAGGTAAAAATCAACCTGCTTAGGCGGTCTTTTCGCTTAAATAGCGTAGAATAATCGGGTC	1800
Qy	1801	GATCGCTTTTAAACACTCAGGAGGATCCCTTTCGCGGCCAAATCAGGACACTCGTCCCAC	1860
Db	1801	GATCGCTTTTAAACACTCAGGAGGATCCCTTTCGCGGCCAAATCAGGACACTCGTCCCAC	1860
Qy	1861	CCAGAAATCCCTTTCAGCGTGTGAAGAGGAAACCGCAGCCGGGGTACCG	1909
Db	1861	CCAGAAATCCCTTTCAGCGTGTGAAGAGGAAACCGCAGCCGGGGTACCG	1909

## RESULT 5

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US-09-951-535-3
; Sequence 3, Application US/09951535
; Publication No. US20030049802A1
; GENERAL INFORMATION:
; APPLICANT: ZIEGLER, PETRA
; APPLICANT: EGGELE, LOTHAR
; APPLICANT: SAHM, HERMANN
; APPLICANT: THIERBACH, GEORG
; TITLE OF INVENTION: NEW NUCLEOTIDE SEQUENCES CODING FOR THE THRE GENE AND
; TITLE OF INVENTION: PROCESS FOR THE ENZYMATIC PRODUCTION OF L-THREONINE
; TITLE OF INVENTION: USING CORYNEFORM BACTERIA
; FILE REFERENCE: 21123/282415/MAS
; CURRENT APPLICATION NUMBER: US/09/951,535
; CURRENT FILING DATE: 2001-09-14
; PRIOR APPLICATION NUMBER: 09/431,099
; PRIOR FILING DATE: 1999-11-01
; PRIOR APPLICATION NUMBER: DE 199 41 478.5
; PRIOR FILING DATE: 1999-09-01
; NUMBER OF SEQ ID NOS: 10
; SOFTWARE: PatentIn ver. 2.1
; SEQ ID NO 3
; LENGTH: 1909
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (280)..(1746)
; OTHER INFORMATION: thre-Gen
US-09-951-535-3

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	Query Match	100.0%;	Score 1909;	DB 10;	Length 1909;	
	Best Local Similarity	100.0%;	Pred. No. 0;			
	Matches 1909;	Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0;	
Qy	1	AGCTTGATGCTCGACGTGCACCTCTAGAGATCCCCCCCCCTTTGACTCGTGTATTGA	60			
Db	1	AGCTTGATGCTCGAGTGCACCTCTAGAGATCCCCCCCCCTTTGACTCGTGTATTGA	60			
Qy	61	GCTGGAGAAGAGACTTGAACCTCTCAACCTACGCATTACAAGTCGGTTCGGCTGCCAATTG	120			
Db	61	GCTGGAGAAGAGACTTGAACCTCTCAACCTACGCATTACAAGTCGGTTCGGCTGCCAATTG	120			
Qy	121	CGGCACCTCCAGCACCGCAGATGCTGATGATCAACAACTACGAATACGTACTCTTAGCGGTAT	180			
Db	121	CGGCACCTCCAGCACCGCAGATGCTGATGATCAACAACTACGAATACGTACTCTTAGCGGTAT	180			
Qy	181	GTGTACATCACAATGGAAATTCGGGGCTAGAGTATCTGTCGAACCGTCGCAATAAAGACGCTG	240			

Db	181	GTGTACATCAATGGAATTCGGGGCTAGAGTAICTGGTGAACCGTGCTAATACGACCTG	240
Qy	241	TGATGGACTCTTTTTCCTTGCAAAATGTTTTCCAGCGGATGTGAGTTTTCGACCCCTT	300
Db	241	TGATGGACTCTTTTTCCTTGCAAAATGTTTTCCAGCGGATGTGAGTTTTCGACCCCTT	300
Qy	301	CGTGGCCGCAATTTCAACAGTTGACGTGCAAAAGCCGCACTCCGCCATCGCCACTAGCC	360
Db	301	CGTGGCCGCAATTTCAACAGTTGACGTGCAAAAGCCGCACTCCGCCATCGCCACTAGCC	360
Qy	361	CCGATTGATCTCACTGACCATAGTCAAGTGGCCGGTGTGATGAATTTGGCTGCGAGAAAT	420
Db	361	CCGATTGATCTCACTGACCATAGTCAAGTGGCCGGTGTGATGAATTTGGCTGCGAGAAAT	420
Qy	421	GGCGATAATTTTGCTTTCTTCAGGTACGTCMAATAGTAGACACCAAGGTACNAGTTTCAGCA	480
Db	421	GGCGATAATTTTGCTTTCTTCAGGTACGTCMAATAGTAGACACCAAGGTACNAGTTTCAGCA	480
Qy	481	GTGACCTCTGCGTACGGTTTGTACTACGSCACGTGGATACAGTTTGAATACGATCACC	540
Db	481	GTGACCTCTGCGTACGGTTTGTACTACGSCACGTGGATACAGTTTGAATACGATCACC	540
Qy	541	ATCTTCACCAACATCCGTTGTGGAGAGAAAGATCCCGGTCAACGTGTTTCAATGTAGGC	600
Db	541	ATCTTCACCAACATCCGTTGTGGAGAGAAAGATCCCGGTCAACGTGTTTCAATGTAGGC	600
Qy	601	AAGTTGACACCAACTTCTCCAAACTGTCTGAGGTTTGACCGTTTGATCCGTTCCATTCAG	660
Db	601	AAGTTGACACCAACTTCTCCAAACTGTCTGAGGTTTGACCGTTTGATCCGTTCCATTCAG	660
Qy	661	GCTGTTGCGACCCGCTGAGGTTGCGAGAAAAATCCTGACGAGTTTGGAGCAATCCCTT	720
Db	661	GCTGTTGCGACCCGCTGAGGTTGCGAGAAAAATCCTGACGAGTTTGGAGCAATCCCTT	720
Qy	721	GGGCTTATAGGTTTCCCTGTGTGGCTTGGCTGGGCAATGATGGTGGTGTCTGTGCT	780
Db	721	GGGCTTATAGGTTTCCCTGTGTGGCTTGGCTGGGCAATGATGGTGGTGTCTGTGCT	780
Qy	781	GTGCTGTTGGTGTGTGATGCGAGGTTTCCCTAAATGCTTTTATACCGGGTTTCAAGTC	840
Db	781	GTGCTGTTGGTGTGTGATGCGAGGTTTCCCTAAATGCTTTTATACCGGGTTTCAAGTC	840
Qy	841	ATTGCCACGACGTCAATTTTGGAAAAAGAGGTTTGCTTACTTCTTCTTCCAAAATGTTGTT	900
Db	841	ATTGCCACGACGTCAATTTTGGAAAAAGAGGTTTGCTTACTTCTTCTTCCAAAATGTTGTT	900
Qy	901	GGTGGTTTTATTGCCACGCTCGCATCGATTCGATTTCTTTTGGGTTTGCATTTGGT	960
Db	901	GGTGGTTTTATTGCCACGCTCGCATCGATTCGATTTCTTTTGGGTTTGCATTTGGT	960
Qy	961	CTTGAGATCAAAACCGACCCAGATCATCGCATCTGGAATTTGTGTGTTTGGCAGGTTTG	1020
Db	961	CTTGAGATCAAAACCGACCCAGATCATCGCATCTGGAATTTGTGTGTTTGGCAGGTTTG	1020
Qy	1021	ACACTGTGCAATCTCTGCAAGGACCGATCACGGGCGCTCCGTTGACAGCAAGTGACCA	1080
Db	1021	ACACTGTGCAATCTCTGCAAGGACCGATCACGGGCGCTCCGTTGACAGCAAGTGACCA	1080
Qy	1081	TTTTTCCAAACACTCCCTGTTTTACCGCGGCAATTTGCTCGCGTGGGTTTTGGGCAATTCAG	1140
Db	1081	TTTTTCCAAACACTCCCTGTTTTACCGCGGCAATTTGCTCGCGTGGGTTTTGGGCAATTCAG	1140
Qy	1141	CTTTCTGAAATCTTGCATGTCACTGTTGCCCTGCCATGGAGTCCGCTGAGCACTTAATAT	1200
Db	1141	CTTTCTGAAATCTTGCATGTCACTGTTGCCCTGCCATGGAGTCCGCTGAGCACTTAATAT	1200
Qy	1201	TCGCTACATTCGCCCGCAATATCGCTGGTGGGTCACCGACGGGCTTTCGAGATCGGT	1260
Db	1201	TCGCTACATTCGCCCGCAATATCGCTGGTGGGTCACCGACGGGCTTTCGAGATCGGT	1260
Qy	1261	TGTTTACCGGAGTGGTCTCGGTGATTAATTCGGGGGCTTACTCGCTGATGGGTTCTGCG	1320



Db	1261	TGTTACGGAGTGGTCTCGGTGATTATTTCGGGGCTTA	TGCGCTGATGGGTTCTGGC	1320
Qy	1321	TTTTATTACCTCTTCGTTGTTTATTATAGGCCCGTCT	CTGCGCTGCGATTGCTGCAACA	1380
Db	1321	TTTTATTACCTCTTCGTTGTTTATTATAGGCCCGTCT	CTGCGCTGCGATTGCTGCAACA	1380
Qy	1381	GCAGTTGGTTTCACTGGTGGTTGCTTGGCCCGTGC	GAATCTTGAATTCACCGGTTGATTTGTG	1440
Db	1381	GCAGTTGGTTTCACTGGTGGTTGCTTGGCCCGTGC	GAATCTTGAATTCACCGGTTGATTTGTG	1440
Qy	1441	GCAGTTCCCGGCATCACCAATGCTTCCAGGCTTCA	GGATTCACCGGGAAATGACGCC	1500
Db	1441	GCAGTTCCCGGCATCACCAATGCTTCCAGGCTTCA	GGATTCACCGGGAAATGACGCC	1500
Qy	1501	ACCTGGAATGATCAAAACACTCATGGGTTTACCA	CAACATTCGGGTTGCTTTAGCCACTGCT	1560
Db	1501	ACCTGGAATGATCAAAACACTCATGGGTTTACCA	CAACATTCGGGTTGCTTTAGCCACTGCT	1560
Qy	1561	TCATCACTTGGCGTGGCGTGGTTTGGGGTAGTGA	TGCGCGAGGCTACGTCGTCCA	1620
Db	1561	TCATCACTTGGCGTGGCGTGGTTTGGGGTAGTGA	TGCGCGAGGCTACGTCGTCCA	1620
Qy	1621	CGAGCTTCAACCATACCGTGCATTTACCAAGCG	GAATGAGTTCTCTTCCAGGAGGAA	1680
Db	1621	CGAGCTTCAACCATACCGTGCATTTACCAAGCG	GAATGAGTTCTCTTCCAGGAGGAA	1680
Qy	1681	GCTGAGCAGAAATCAGCGCGCAGAGAAACGTC	CAAGACTAATCAGAGATTCCGGTAAT	1740
Db	1681	GCTGAGCAGAAATCAGCGCGCAGAGAAACGTC	CAAGACTAATCAGAGATTCCGGTAAT	1740
Qy	1741	AAAAGGTAATAATCAACCTGCTTAGCGGCTCTT	TCGCTTAAATAGCGTAGAATATCGGGTC	1800
Db	1741	AAAAGGTAATAATCAACCTGCTTAGCGGCTCTT	TCGCTTAAATAGCGTAGAATATCGGGTC	1800
Qy	1801	GATCGCTTTAAACACTCAGAGAGATCTTGC	CGCGCCAAAATCAGGACACTGTCGCCAC	1860
Db	1801	GATCGCTTTAAACACTCAGAGAGATCTTGC	CGCGCCAAAATCAGGACACTGTCGCCAC	1860
Qy	1861	CCAGAAATCCCTTCAACCTGTTGAAGAGGAAAC	CGCAGCGGGTACCG	1909
Db	1861	CCAGAAATCCCTTCAACCTGTTGAAGAGGAAAC	CGCAGCGGGTACCG	1909
RESULT 6				
US-10-224-574-11				
; Sequence 11, Application US/10224574				
; Publication No. US20040101837A1				
; GENERAL INFORMATION:				
; APPLICANT: P. Peters- Wendisch				
; TITLE OF INVENTION: Nucleotide sequences coding for proteins participating in the svr				
; TITLE OF INVENTION: L-Serin, improved process for the microbial manufacture of L-ser				
; FILE REFERENCE: FZJ-9912-PCT				
; CURRENT APPLICATION NUMBER: US/10/224.574				
; CURRENT FILING DATE: 2002-08-21				
; NUMBER OF SEQ ID NOS: 12				
; SOFTWARE: PatentIn Ver. 2.1				
; SEQ ID NO 11				
; LENGTH: 1909				
; TYPE: DNA				
; ORGANISM: C. glutanicum ATCC 13 032				
; FEATURE:				
; NAME/KEY: CDS				
; LOCATION: (280)..(1746)				
; OTHER INFORMATION: thr E (Threonin-exportcarrier)				
US-10-224-574-11				
Query Match 100.0%; Score 1909; DB 17; Length 1909;				
Best Local Similarity 100.0%; Pred. No. 0;				
Matches 1909; Conservative 0; Mismatches 0; Indels 0; Gaps 0;				
Qy	1	AGCTTGCATGCTGCAGTGGACTCTAGAGGATCC	CCCCCTTTGACCTGGTATTGA	60

Db	1	AGCTTGCATGCTGCAGTGGACTCTAGAGGATCC	CCCCCTTTGACCTGGTATTGA	60
Qy	61	GCTGGAGAGAGACTTGAACCTCTCAACCTAGCA	TTCACAAAGTGGCTTGGCTGCCAATTG	120
Db	61	GCTGGAGAGAGACTTGAACCTCTCAACCTAGCA	TTCACAAAGTGGCTTGGCTGCCAATTG	120
Qy	121	CGCCACTCCAGCAGCCGAGATGCTGATGATCA	CAACACTACGAAATACGTAATCTTAGCGTAT	180
Db	121	CGCCACTCCAGCAGCCGAGATGCTGATGATCA	CAACACTACGAAATACGTAATCTTAGCGTAT	180
Qy	181	GTGTATACATCAATATGGAATTCGGGGCTGAG	ATCTGGTGAAACCGTGATCTTAGCGTAT	240
Db	181	GTGTATACATCAATATGGAATTCGGGGCTGAG	ATCTGGTGAAACCGTGATCTTAGCGTAT	240
Qy	241	TGATTTGGACTCTTTTCTTTCCTTGC	AAATGTTTTCCAGCGGATGTTGAGTTTTGGACCCCTT	300
Db	241	TGATTTGGACTCTTTTCTTTCCTTGC	AAATGTTTTCCAGCGGATGTTGAGTTTTGGACCCCTT	300
Qy	301	CGTGGCGGCAATTTCAACAGTTGACGCTGCA	AAAGCCGACCTCGCCCATCGCCACTAGCC	360
Db	301	CGTGGCGGCAATTTCAACAGTTGACGCTGCA	AAAGCCGACCTCGCCCATCGCCACTAGCC	360
Qy	361	CCGATTGATCTCACTGACCATAGTCAAGTGC	CGGTGTGATGAATTTGGCTGCGAGAATT	420
Db	361	CCGATTGATCTCACTGACCATAGTCAAGTGC	CGGTGTGATGAATTTGGCTGCGAGAATT	420
Qy	421	GGCGATATTTTGTCTTCTTCCAGGTA	CGTCAAAATAGTACACCAAGGTTACGATTCGAGCA	480
Db	421	GGCGATATTTTGTCTTCTTCCAGGTA	CGTCAAAATAGTACACCAAGGTTACGATTCGAGCA	480
Qy	481	GTGACCTCTCGTACGCTTCTTCCAACTG	TCTGAGGTTGACCGTTTGTATACCATCACC	540
Db	481	GTGACCTCTCGTACGCTTCTTCCAACTG	TCTGAGGTTGACCGTTTGTATACCATCACC	540
Qy	541	ATCTTCAACCAATTCGGTGTGGAGAGAA	GATGCGGTCAACGTTTTCATGTTGTAGGC	600
Db	541	ATCTTCAACCAATTCGGTGTGGAGAGAA	GATGCGGTCAACGTTTTCATGTTGTAGGC	600
Qy	601	AGCTTGGACACCAACTTCTCCAACTG	TCTGAGGTTGACCGTTTGTATACCATCAG	660
Db	601	AGCTTGGACACCAACTTCTCCAACTG	TCTGAGGTTGACCGTTTGTATACCATCAG	660
Qy	661	GCTGGTGCAGACCCCGCTGAGGTTG	CCGAGAAATCCTGACGAGTTGGAGCAATCCCT	720
Db	661	GCTGGTGCAGACCCCGCTGAGGTTG	CCGAGAAATCCTGACGAGTTGGAGCAATCCCT	720
Qy	721	GCCTCTTATGTTTCCCTGTTGCTTGG	CTTGGTGGCAATGATGGGTGCTGTTGCT	780
Db	721	GCCTCTTATGTTTCCCTGTTGCTTGG	CTTGGTGGCAATGATGGGTGCTGTTGCT	780
Qy	781	GTGCTGTGGTGGTGGATGGCAGGTTT	CCCTAATGCTTTTATACCGGTTCCAGATC	840
Db	781	GTGCTGTGGTGGTGGATGGCAGGTTT	CCCTAATGCTTTTATACCGGTTCCAGATC	840
Qy	841	ATTGCCACGACGTCATTTTGGGAA	AGAGGGTTTGCTACTTTCTTCCAAATGTTGT	900
Db	841	ATTGCCACGACGTCATTTTGGGAA	AGAGGGTTTGCTACTTTCTTCCAAATGTTGT	900
Qy	901	GGTGGTTTATTCGCCACGCTGCTG	CATTCGATTCGTTTCTTTGGGCTTGC	960
Db	901	GGTGGTTTATTCGCCACGCTGCTG	CATTCGATTCGTTTCTTTGGGCTTGC	960
Qy	961	CTTGAGATCAACCGGACCCAGATCAT	CGCATCTGGAATTTGCTGTTGGCAGGTTT	1020
Db	961	CTTGAGATCAACCGGACCCAGATCAT	CGCATCTGGAATTTGCTGTTGGCAGGTTT	1020
Qy	1021	ACACTCGTGAATCTCTGACAGGAC	GGCATCACCGGCGCTCCGGTGACAGAGTCACGA	1080
Db	1021	ACACTCGTGAATCTCTGACAGGAC	GGCATCACCGGCGCTCCGGTGACAGAGTCACGA	1080
Qy	1081	TTTTTCCGAAACACTCTCTGTTT	TACCGCGGCAATTTGCTGCGGTGGGCAATTCAG	1140
Db	1081	TTTTTCCGAAACACTCTCTGTTT	TACCGCGGCAATTTGCTGCGGTGGGCAATTCAG	1140

Db 1081 TTTTTCGAACACATCTCTGTTTACCGCGCGCATTTGTTGCTGGCGTGGGTTTGGGCATTTCAG 1140  
Qy 1141 CTTTCTGAATCTTTGATGTCATGTTGCTGCTGCCATGGAGTCCGCTCGAGCACCTAATTAT 1200  
Db 1141 CTTTCTGAATCTTTGATGTCATGTTGCTGCTGCCATGGAGTCCGCTCGAGCACCTAATTAT 1200  
Qy 1201 TCGCTACATTTCCCGCGCATTTATCGTGGTGGGTTCACCGCAGCGCCTTCGAGTGGGT 1260  
Db 1201 TCGCTACATTTCCCGCGCATTTATCGTGGTGGGTTCACCGCAGCGCCTTCGAGTGGGT 1260  
Qy 1261 TGTTCGCGAGTGGTCTCGGTGATTTATTCGCGGGCTTACTCGCTGATGGTCTTCGCG 1320  
Db 1261 TGTTCGCGAGTGGTCTCGGTGATTTATTCGCGGGCTTACTCGCTGATGGTCTTCGCG 1320  
Qy 1321 TTTTATPACCTCTTCGTTGTTTATTTAGGCCCCGCTCTGCGCGCTGCGATTTGCTGCAACA 1380  
Db 1321 TTTTATPACCTCTTCGTTGTTTATTTAGGCCCCGCTCTGCGCGCTGCGATTTGCTGCAACA 1380  
Qy 1381 GCAGTTGGTTTCACTGGTGGTTCGTTGCCCGTCGATTTCTTGATTCACCGTTGATTGTG 1440  
Db 1381 GCAGTTGGTTTCACTGGTGGTTCGTTGCCCGTCGATTTCTTGATTCACCGTTGATTGTG 1440  
Qy 1441 GCGATTTGCCGGCATCACCAATGCTTCCAGGTCTAGCAATTTACCGCGGAATGTACGCC 1500  
Db 1441 GCGATTTGCCGGCATCACCAATGCTTCCAGGTCTAGCAATTTACCGCGGAATGTACGCC 1500  
Qy 1501 ACCTGATGATCAAAACATCATGCGTTTACCAACATTTGCGGTTCGTTTACCGCATGCT 1560  
Db 1501 ACCTGATGATCAAAACATCATGCGTTTACCAACATTTGCGGTTCGTTTACCGCATGCT 1560  
Qy 1561 TCATCACTTCCGCTGCGGTGGTTCGTTGCCCGTCGATTTGCGGTTCGTTTACCGCATGCT 1620  
Db 1561 TCATCACTTCCGCTGCGGTGGTTCGTTGCCCGTCGATTTGCGGTTCGTTTACCGCATGCT 1620  
Qy 1621 CCACGCTTCAACCATACCGTGCATTTTACCAAGCGGAATGAGTTCCTTCCAGGAGAA 1680  
Db 1621 CCACGCTTCAACCATACCGTGCATTTTACCAAGCGGAATGAGTTCCTTCCAGGAGAA 1680  
Qy 1681 GCTGAGCAGATCAGCGCGCGCAGAGAAACGTTCCAAAGACTAATCAGAGATTCGTAAT 1740  
Db 1681 GCTGAGCAGATCAGCGCGCGCAGAGAAACGTTCCAAAGACTAATCAGAGATTCGTAAT 1740  
Qy 1741 AAAAGGTAATAATCAACCTGCTTAGCGCTCTTTCGCTTAAATAGCTAGAAATCGGGTC 1800  
Db 1741 AAAAGGTAATAATCAACCTGCTTAGCGCTCTTTCGCTTAAATAGCTAGAAATCGGGTC 1800  
Qy 1801 GATCGCTTTTAAACATCAGAGAGATCCTTTCGCGGCCAAATCAGGACATCGTCCAC 1860  
Db 1801 GATCGCTTTTAAACATCAGAGAGATCCTTTCGCGGCCAAATCAGGACATCGTCCAC 1860  
Qy 1861 CCAGAAATCCCTTACGCTGTTGAGAGGAAACCGCAGCGGGGTACCG 1909  
Db 1861 CCAGAAATCCCTTACGCTGTTGAGAGGAAACCGCAGCGGGGTACCG 1909

RESULT 7

US-09-738-626-1  
; Sequence 1, Application US/09738626  
; Publication No. US20020197605A1  
; GENERAL INFORMATION:  
; APPLICANT: NAKAGAWA, SATOSHI  
; APPLICANT: MIZOGUCHI, HIROSHI  
; APPLICANT: ANDO, SEIKO  
; APPLICANT: HAYASHI, MIKIRO  
; APPLICANT: OCHIALI, KEIKO  
; APPLICANT: YOKOI, HARUHIKO  
; APPLICANT: TATEISHI, NAKO  
; APPLICANT: SENOH, AKIHIRO  
; APPLICANT: IKEDA, MASATO  
; APPLICANT: OZAKI, AKIO  
; TITLE OF INVENTION: NOVEL POLYNUCLEOTIDES  
; FILE REFERENCE: 249-125  
; CURRENT APPLICATION NUMBER: US/09/738, 626

; CURRENT FILING DATE: 2000-12-18  
; PRIOR APPLICATION NUMBER: JP 99/377484  
; PRIOR FILING DATE: 1999-12-16  
; PRIOR APPLICATION NUMBER: JP 00/159162  
; PRIOR FILING DATE: 2000-04-07  
; PRIOR APPLICATION NUMBER: JP 00/280988  
; PRIOR FILING DATE: 2000-08-03  
; NUMBER OF SEQ ID NOS: 7059  
; SOFTWARE: PatentIn ver. 3.0  
; SEQ ID NO 1  
; LENGTH: 3309400  
; TYPE: DNA  
; ORGANISM: Corynebacterium glutamicum  
US-09-738-626-1

Query Match 97.7%; Score 1865.4; DB 9; Length 3309400;  
Best Local Similarity 99.9%; Pred. No. 0;  
Matches 1866; Conservative 0; Mismatches 1; Indels 0; Gaps 0;  
Qy 38 CCCCTTTGACCTGGTGTATTGAGCTGGAGAGAGACTTGAACCTCTCAACCTACGCATT 97  
Db 2790740 CCCCTTTGACCTGGTGTATTGAGCTGGAGAGAGACTTGAACCTCTCAACCTACGCATT 2790799  
Qy 98 CAAAGTCGCTTGGCTGCCAATTCGCCCACTCCAGCACCGCAGATGCTGATGATCAACAAC 157  
Db 2790800 CAAAGTCGCTTGGCTGCCAATTCGCCCACTCCAGCACCGCAGATGCTGATGATCAACAAC 2790859  
Qy 158 TACGAAATAGCTATCTTAGCGTATGTATACATCAATGGAATTCGGGGCTAGATATCTG 217  
Db 2790860 TACGAAATAGCTATCTTAGCGTATGTATACATCAATGGAATTCGGGGCTAGATATCTG 2790919  
Qy 218 GTGAACCGTGCATAAACGACCTGTGATTTGGACTCTTTTTCCTTGCATAATGTTTTCACG 277  
Db 2790920 GTGAACCGTGCATAAACGACCTGTGATTTGGACTCTTTTTCCTTGCATAATGTTTTCACG 2790979  
Qy 278 GGATGTTGAGTTTGGCAGCCCTTCGTGGCCGATTTCAACAGTTGACGCTGCAAAAGCCG 337  
Db 2790980 GGATGTTGAGTTTGGCAGCCCTTCGTGGCCGATTTCAACAGTTGACGCTGCAAAAGCCG 2791039  
Qy 338 CACCTCCGCCATCCGCACTAGCCCGATTTGATCTCACTGACCATAGTCAAGTGGCCGGTG 397  
Db 2791040 CACCTCCGCCATCCGCACTAGCCCGATTTGATCTCACTGACCATAGTCAAGTGGCCGGTG 2791099  
Qy 398 TGATGAATTTGGCTGCGAGAAATGGCGATATTTTGTCTTTCAGTACGTCAAAATAGTG 457  
Db 2791100 TGATGAATTTGGCTGCGAGAAATGGCGATATTTTGTCTTTCAGTACGTCAAAATAGTG 2791159  
Qy 458 ACACCAAGGTACAAGTTTCGAGCAGTGACCTCTGCGTACGTTTGTACTACACGACGTGG 517  
Db 2791160 ACACCAAGGTACAAGTTTCGAGCAGTGACCTCTGCGTACGTTTGTACTACACGACGTGG 2791219  
Qy 518 ATATCACGTTGAATACGATCACCATCTTCCACCAATCGTGTGGAGAGAAAGATGCCGG 577  
Db 2791220 ATATCACGTTGAATACGATCACCATCTTCCACCAATCGTGTGGAGAGAAAGATGCCGG 2791279  
Qy 578 TCAACGTTTTCATGTTGAGCAAGTTGGACACCAACTTCTCCAACTGTCTGAGGTTG 637  
Db 2791280 TCAACGTTTTCATGTTGAGCAAGTTGGACACCAACTTCTCCAACTGTCTGAGGTTG 2791339  
Qy 638 ACCGTTTGTATCCGTTCCATTTCAGGCTGGTGGACCCCGCTGAGGTTGCGGAGAAATCC 697  
Db 2791340 ACCGTTTGTATCCGTTCCATTTCAGGCTGGTGGACCCCGCTGAGGTTGCGGAGAAATCC 2791399  
Qy 698 TGGACGAGTTGGAGCAATCCCTGCGTCTTATGTTTTCCTGTTGCTTGGCTGGG 757  
Db 2791400 TGGACGAGTTGGAGCAATCCCTGCGTCTTATGTTTTCCTGTTGCTTGGCTGGG 2791459  
Qy 758 CAATGATGGGTGCTGCTGTTGCTGCTGTTGGTGGTGGATGGCAGGTTTCCCTAATTG 817  
Db 2791460 CAATGATGGGTGCTGCTGTTGCTGCTGTTGGTGGTGGATGGCAGGTTTCCCTAATTG 2791519  
Qy 818 CTTTATTTACCGGTTTCAGATCATTGCCACGCTCATTTTGGGAAAGAGGTTTGC 877



Db	696	TCAA	CGTGGTTTCATGTTTGGGCAAGTTGGAGACAACTTCTCTCCAACACTGTCTGAGGTTG	755
Qy	638	ACCG	TTTGATCCGTTCCATTCAGGCTGGTGCACCCCGCTGAGGTTGCGAGAAATCC	697
Db	756	ACCG	TTTGATCCGTTCCATTCAGGCTGGTCTACCCGCTGAGGTTGCGAGAAATTC	815
Qy	698	TGGA	CGAGTTGGAGCAATCCCTTCGGTCTTATGGTTTCCCTGTTGGTTGCTTGGCTGG	757
Db	816	TGGA	CGAGTTGGAGCAATCCCTTCGGTCTTATGGTTTCCCTGTTGGTTCCTTGGCTGG	875
Qy	758	CAAT	GATGGGCTGGTCTGTTGCTGTGTGGTGGTGGTGGATGGCAGGTTTCCTTAATTG	817
Db	876	CAAT	GATGGGCTGGGCTGTTGCTGTGTGGTGGTGGATGGCAGGTTTCCTTAATTG	935
Qy	818	CTTT	TATTAACGGGTTCCAGATCATTCGACAGAGTCATTTTGGGAAAGAGGTTTCG	877
Db	936	CTTT	TATTAACGGGTTCCAGATCATTCGACAGAGTCATTTTGGGAAAGAGGTTTCG	995
Qy	878	CTACT	TTTCCAAAATGTTGTTGGTGGTTTATTCGACGCTGCCTGCATCGAATGCTT	937
Db	996	CTACT	TTTCCAAAATGTTGTTGGTGGTTTATTCGACGCTGCCTGCATCGAATGCTT	1055
Qy	938	ATTCT	TTTGGGCTTGCAATTTGGTCTTGAGATCAAAACGAGCGAGATCATCGCATCTG	997
Db	1056	ATTCT	TTTGGGCTTGCAATTTGGTCTTGAGATCAAAACGAGCGAGATCATCGCATCTG	1115
Qy	998	TTGT	TGCTGTTGGCAGGTTTGACACTCGTGCAATCTCTGCAGGACGGCATCACGGCG	1057
Db	1116	TTGT	TGCTGTTGGCAGGTTTGACACTGTGCAATCTCTGCAGGACGGCATCACGGCG	1175
Qy	1058	CTCCG	GTGACAGCAAGTGCCAGATTTTTCGAAACACCTCTGTTTACCGCGGCAATGTTG	1117
Db	1176	CTCCG	GTGACAGCAAGTGCCAGATTTTTCGAAACACCTCTGTTTACCGCGGCAATGTTG	1235
Qy	1118	CTGCG	GTGGGTAATTCAGCTTCTGAAATCTTGCAATGTCATGTTGCCCTGCCATGG	1177
Db	1236	CTGCG	GTGGGTAATTCAGCTTCTGAAATCTTGCAATGTCATGTTGCCCTGCCATGG	1295
Qy	1178	AGTC	CGCTGCAGCACTAATTTATTCGTCATATTCGCGCCGCAATTCGCTGGTGGGTC	1237
Db	1296	AGTC	CGCTGCAGCACTAATTTATTCGTCATATTCGCGCCGCAATTCGCTGGTGGGTC	1355
Qy	1238	CCGCA	GCGGCTTCGCAAGTGGTTGTTACGCGAGTGGTCTCGTGATTTATTCGCGGCG	1297
Db	1356	CCGCA	GCGGCTTCGCAAGTGGTTGTTACGCGAGTGGTCTCGTGATTTATTCGCGGCG	1415
Qy	1298	TTACT	CGCTGATGGTTCTCGGTTTTATTTACCTCTCTGTTGTTTATTTAGGCCCGCT	1357
Db	1416	TTACT	CGCTGATGGTTCTCGGTTTTATTTACCTCTCTGTTGTTTATTTAGGCCCGCT	1475
Qy	1358	CTGCG	GTGCAATTCGTCGCAACAGCAGTTGGTTTCACTGTTGGTTCCTTGCCTGCAT	1417
Db	1476	CTGCG	GTGCAATTCGTCGCAACAGCAGTTGGTTTCACTGTTGGTTCCTTGCCTGCAT	1535
Qy	1418	TCATT	CAACCGTTGATGTTGGCGATTCGCGGATCACACCAATGCTTCCAGTCTAG	1477
Db	1536	TCATT	CAACCGTTGATGTTGGCGATTCGCGGATCACACCAATGCTTCCAGTCTAG	1595
Qy	1478	CAAT	TTCGCGGAATGTACGCCACCTCGAATGATCAAACTCATGGGTTTCAACCA	1537
Db	1596	CAAT	TTCGCGGAATGTACGCCACCTCGAATGATCAAACTCATGGGTTTCAACCA	1655
Qy	1538	TTGCG	GTGCTTATGACCACTGCTTCATCACTTTGCGCTGGCGTGTTTGGTGAGTGA	1597
Db	1656	TTGCG	GTGCTTATGACCACTGCTTCATCACTTTGCGCTGGCGTGTTTGGTGAGTGA	1715
Qy	1598	TTGCC	CGCAGGCTAGTCGTCACACGCTTCAACCCATACCGTGCAATTTACCAAGCG	1657
Db	1716	TTGCC	CGCAGGCTAGTCGTCACACGCTTCAACCCATACCGTGCAATTTACCAAGCG	1775
Qy	1658	ATGAG	TCTCTTCAGGAGGAGCTGACGAGATTCAGCGCCGCGCAGAGAAACGTCAA	1717
Db	1776	ATGAG	TCTCTTCAGGAGGAGCTGACGAGATTCAGCGCCGCGCAGAGAAACGTCAA	1835

Qy	1718	AGACTAATCAGAGATTCGGTAAATAAAGGTAAAAATCAACCTGCTTAGGCGTCTTTTCGCT	1777
Db	1836	AGACTAATCAAGATTCGGTAAATAAAGGTAAAAATCAACCTGCTTAGGCGTCTTTTCGCT	1895
Qy	1778	TAAATAGCGTAGAATATCGGGTCGATCGCTTTTAAACACTCAGAGAGGATCCTTGC CGGCC	1837
Db	1896	TAAATAGCGTAGAATATCGGGTCGATCGCTTTTAAACACTCAGAGAGGATCCTTGC CGGCC	1955
Qy	1838	AAATCAGGACACTCGTCCACCCAGAGATCCCTTCAAGCTGTGAAGAGGAAACCGCA	1897
Db	1956	AAATCAGGACACTCGTCCACCCAGAGATCCCTTCAAGCTGTGAAGAGGAAACCGCA	2015
Qy	1898	GCCGGGG 1904	
Db	2016	GCCGGTG 2022	

RESULT 9  
 US-09-963-521-1  
 ; Sequence 1, Application US/09963521  
 ; Patent No. US20020146781A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: ZIEGLER, PETRA  
 ; APPLICANT: EGELING, LOTHAR  
 ; APPLICANT: SAHM, HERMANN  
 ; TITLE OF INVENTION: NEW NUCLEOTIDE SEQUENCES CODING FOR THE THRE GENE  
 ; TITLE OF INVENTION: AND PROCESS FOR THE ENZYMA TIC PRODUCTION OF  
 ; TITLE OF INVENTION: L-THREONINE USING CORYNEFORM BACTERIA  
 ; FILE REFERENCE: 21123/282413/MAS  
 ; CURRENT APPLICATION NUMBER: US/09/963,521  
 ; CURRENT FILING DATE: 2001-09-27  
 ; PRIOR APPLICATION NUMBER: 09/431,099  
 ; PRIOR FILING DATE: 1999-11-01  
 ; PRIOR APPLICATION NUMBER: DE 199 41 478.5  
 ; PRIOR FILING DATE: 1999-09-01  
 ; NUMBER OF SEQ ID NOS: 10  
 ; SOFTWARE: PatentIn Ver. 2.1  
 ; SEQ ID NO 1  
 ; LENGTH: 2817  
 ; TYPE: DNA  
 ; ORGANISM: Corynebacterium glutamicum  
 ; FEATURE:  
 ; NAME/KEY: CDS  
 ; LOCATION: (398)..(1864)  
 ; OTHER INFORMATION: thr-Gen  
 US-09-963-521-1

Query Match	96.2%	Score	1836.6	DB	9	Length	2817
Best Local Similarity	99.0%	Pred. No.	0				
Matches	1848	Conservative	0	Mismatches	19	Indels	0
						Gaps	0
QY	38	CCCCTTTGACCTGCTGTTATTGAGCTCGAGAGAAGACTTGAACTCTCAACCTACGCAATTA	97				
DB	156	CCCCTTTGACCTGCTGTTATTGAGCTGGAGAAGAAGACTTGAACTCTCAACCTACGCAATTA	215				
QY	98	CAAGTGGCTTCCGCTGCCAAATTGGCCCACTCCAGCACCGCAGATGCTGATGATCAACAAC	157				
DB	216	CAAGTGGCTTCCGCTGCCAAATTGGCCCACTCCAGCACCGCAGATGCTGATGATCAACAAC	275				
QY	158	TACGAATACGTTATCTTAGCTGTTATGTGTACATCAAAATGGAAATTCGGGCTAGAGTATCTG	217				
DB	276	TACGAATACGTTATCTTAGCTGTTATGTGTACATCAAAATGGAAATTCGGGCTAGAGTATCTG	335				
QY	218	GTGAACCGTGCATAAACAAGACCTGTGATTTGGACTCTTTTCCCTGCAAAATGTTTTCCAGC	277				
DB	336	GTGAACCGTGCATAAACAAGACCTGTGATTTGGACTCTTTTCCCTGCAAAATGTTTTCCAGC	395				
QY	278	GGATGTTGAGTTTTCGGACCCCTTCGTGGCCGCAATTTCAACAGTTTGACGCTCAAAAGCCG	337				
DB	396	GGATGTTGAGTTTTCGGACCCCTTCGTGGCCGCAATTTCAACAGTTTGACGCTCAAAAGCCG	455				
QY	338	CACCTTCGCCCAATCGCCACTAGCCCGGATTTGATCTCACTGACCATAGTCAAGTGGCCGGTG	397				

Db 456 CACCTCGCCCATCGCCATAGCTGATCTCACTGACCATAGTCAAGTGGCCGGTG 515  
Qy 398 TGATGAATTTGGCTGCGAGAAATGGCGATATTTTGTCTTCTTACGAGTACGTCAAATAGTG 457  
Db 516 TGATGAATTTGGCTGCGAGAAATGGCGATATTTTGTCTTCTTACGAGTACGTCAAACAGTG 575  
Qy 458 ACACCAAGGTACAAAGTTCCGACAGTACCTCTGCGTAGCGTTTGTACTACACGACAGTGG 517  
Db 576 ATACCAAGGTGCAAGTTCCGCGGTGACCTCTGCGTATGGCTGTACTATACGATGTGG 635  
Qy 518 ATATCAGGTGAAATACGATCAACCTCTTACCAACATCGGTGTGGAGAGGAAGATGCCGG 577  
Db 636 ATATCAGGTGAAATACGATCAACCTCTTACCAACATCGGTGTGGAGAGGAAGATGCCGG 695  
Qy 578 TCAACGTTTCATGTTGTAGCAAGTTGGACCAACCTCTTCCAACTGTCTGAGTTG 637  
Db 696 TCAACGTTTCATGTTGTGGGCAAGTTGGACCAACCTCTTCCAACTGTCTGAGTTG 755  
Qy 638 ACCGTTTGATCCGTTCCANTCAGGCTGTGGACCCCGCTGAGTTGCCGAGAAAATCC 697  
Db 756 ACCGTTTGATCCGTTCCANTCAGGCTGTGGACCCCGCTGAGTTGCCGAGAAAATTC 815  
Qy 698 TGGACGAGTTGGAGCAATCCCTCGCTCTTATGTTTCCCTGTTCGCTTGTCTGGCTGGG 757  
Db 816 TGGACGAGTTGGAGCAATCCCTCGCTCTTATGTTTCCCTGTTCGCTTGTCTGGCTGGG 875  
Qy 758 CAATGATGGGTGGTGTCTGCTGTGTTGGGTGTGGATGGAGGTTTCCCTAATGG 817  
Db 876 CAATGATGGGTGGGCTGTCTGCTGTGTTGGGTGTGGATGGAGGTTTCCCTAATGG 935  
Qy 818 CTTTTATTACCGCTTACAGTATTCGACGAGCTCAATTTTGGGAAAGAGGTTTG 877  
Db 936 CTTTTATTACCGCTTACAGTATTCGACGAGCTCAATTTTGGGAAAGAGGTTTG 995  
Qy 878 CTACTTTCTTCCAAAATGTTGTTGGTGTGTTTATTTGCCACGCTGCTGCATCGATGCTT 937  
Db 996 CTACTTTCTTCCAAAATGTTGTTGGTGTGTTTATTTGCCACGCTGCTGCATCGATGCTT 1055  
Qy 938 ATCTTTGGCGTTGCAATTTGGCTTTGAGATCAAAACGAGCAGATCATCGATCTGGAA 997  
Db 1056 ATCTTTGGCGTTGCAATTTGGCTTTGAGATCAAAACGAGCAGATCATCGATCTGGAA 1115  
Qy 998 TTGTTGTGCTGTGCGAGTTTGCACGCTGTCATCTCTCAGAGCGGATCATCGGGCG 1057  
Db 1116 TTGTTGTGCTGTGCGAGTTTGCACGCTGTCATCTCTCAGAGCGGATCATCGGGCG 1175  
Qy 1058 CTCGGGTGACAGCAAGTGCAGATTTTTCGAAAACACTCTCTTTACCGCGCGCATTTGTTG 1117  
Db 1176 CTCGGGTGACAGCAAGTGCAGATTTTTCGAAAACACTCTCTTTACCGCGCGCATTTGTTG 1235  
Qy 1118 CTGGCGTGGGTTTGGGCATTCAGCTTTCTGAAATCTTGCATGTCAATGTTGCTGCCATGG 1177  
Db 1236 CTGGCGTGGGTTTGGGCATTCAGCTTTCTGAAATCTTGCATGTCAATGTTGCTGCCATGG 1295  
Qy 1178 AGTCGCTGACAGCACTTAATTTATTCGCTCAATTCGCCCGCATTTATCGCTGGCGCTCA 1237  
Db 1296 AGTCGCTGACAGCACTTAATTTATTCGCTCAATTCGCCCGCATTTATCGCTGGCGCTCA 1355  
Qy 1238 CCGCAGCGGCTTCCGACGTGGTTTGTACGCGGAGTGGTCTCGGTGATTAATTTGCGGGCG 1297  
Db 1356 CCGCAGCGGCTTCCGACGTGGTTTGTACGCGGAGTGGTCTCGGTGATTAATTTGCGGGCG 1415  
Qy 1298 TTAATGCGCTGAATGGGTTCTCGGTTTATTAACCTCTTCGTTGTTTATTAAGGCCCGCTCT 1357  
Db 1416 TTAATGCGCTGAATGGGTTCTCGGTTTATTAACCTCTTCGTTGTTTATTAAGGCCCGCTCT 1475  
Qy 1358 CTGCGCTGCAATGCTGCAACAGCAGTTGTTTCACTGGTGGTTTGTGCTTGGCGCTGAT 1417  
Db 1476 CTGCGCTGCAATGCTGCAACAGCAGTTGTTTCACTGGTGGTTTGTGCTTGGCGCTGAT 1535  
Qy 1418 TCTTGATTCCACCGTTGATTGTGGCGATTGGCGGATTCACACCAATGCTTCCAGTCTTAG 1477

Db 1536 TCTTGATTCCACCGTTGATTGTGGCGATTGGCGCATCACACCAATGCTTCCAGGTCTAG 1595  
Qy 1478 CAATTTACCGCGGAATGTAGCCACCCCTGAAATGATCAAAACACTCATGGGTTTCAACCAACA 1537  
Db 1596 CAATTTACCGCGGAATGTAGCCACCCCTGAAATGATCAAAACACTCATGGGTTTCAACCAACA 1655  
Qy 1538 TTGCGGTTGCTTTAGCCACTGCTTTCATCATTGCGCGCTGGCGTGGTTTGGGTGAGTGA 1597  
Db 1656 TTGCGGTTGCTTTAGCCACTGCTTTCATCATTGCGCGCTGGCGTGGTTTGGGTGAGTGA 1715  
Qy 1598 TTGCGCGAGGCTACGTCGTCACACGCTTCAACCCATACCGTGCATTTACCAAGGCGA 1657  
Db 1716 TTGCGCGAGGCTACGTCGTCACACGCTTCAACCCATACCGTGCATTTACCAAGGCGA 1775  
Qy 1658 ATGAGTTCTCTCTCCAGAGGAAGCTGAGCAGAAATCAGCGCGCAGAGAAAACGTCCAA 1717  
Db 1776 ATGAGTTCTCTCTCCAGAGGAAGCTGAGCAGAAATCAGCGCGCAGAGAAAACGTCCAA 1835  
Qy 1718 AGACTAATCAGAGATTTCGGTAATAAAGGTAAAAATCAACCTGCTTAGCGCTCTTTGCGT 1777  
Db 1836 AGACTAATCAGAGATTTCGGTAATAAAGGTAAAAATCAACCTGCTTAGCGCTCTTTGCGT 1895  
Qy 1778 TAAATAGCGTAGAATATCGGTCGATCGCTTTTAAACAATCAGAGGATCCTTGCCTGGC 1837  
Db 1896 TAAATAGCGTAGAATATCGGTCGATCGCTTTTAAACAATCAGAGGATCCTTGCCTGGC 1955  
Qy 1838 AAATATCAGGACACTCGTCCACCCAGAAATCCCTTCAACCTGTTGAGAGGAACCGCA 1897  
Db 1956 AAATATCAGGACACTCGTCCACCCAGAAATCCCTTCAACCTGTTGAGAGGAACCGCA 2015  
Qy 1898 GCCCGGG 1904  
Db 2016 GCCGGTG 2022

RESULT 10

US-09-834-721-1  
; Sequence 1, Application US/09834721  
; Patent No. US20020155551A1  
; GENERAL INFORMATION:  
; APPLICANT: RIEPING, MECHTHILD  
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF L-THREONINE  
; FILE REFERENCE: 21123/280169/MAS  
; CURRENT APPLICATION NUMBER: US/09/834,721  
; CURRENT FILING DATE: 2001-04-16  
; PRIOR FILING DATE: 2000-05-27  
; PRIOR APPLICATION NUMBER: DE 100 26 494.8  
; PRIOR FILING DATE: 2001-01-23  
; NUMBER OF SEQ ID NOS: 12  
; SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 1  
; LENGTH: 2817  
; TYPE: DNA  
; ORGANISM: Corynebacterium glutamicum  
; FEATURE:  
; OTHER INFORMATION: ATCC14752  
; NAME/KEY: CDS  
; LOCATION: (398)..(1864)  
; OTHER INFORMATION: thrE gene  
US-09-834-721-1

Query Match 96.2%; Score 1836.6; DB 9; Length 2817;

Best Local Similarity 99.0%; Pred. No. 0;

Matches 1848; Conservative 0; Mismatches 19; Indels 0; Gaps 0;

Qy 38 CCCCTTTGACTGCTGTTATTAGCTGGAGAGAGACTTGAACCTCTCAACCTACGCATT 97  
Db 156 CCCCTTTGACTGCTGTTATTAGCTGGAGAGAGACTTGAACCTCTCAACCTACGCATT 215  
Qy 98 CAAAGTGGCTTGGCTGCCAATTTGCCCACTCCAGCAGGATGCTGATGATCAACAAAC 157  
Db 216 CAAAGTGGCTTGGCTGCCAATTTGCCCACTCCAGCAGGATGCTGATGATCAACAAAC 275



US-09-783-388-1

Query Match		96.2%;	Score 1836.6;	DB 9;	Length 2817;	
Best Local Similarity		99.0%;	Pred. No. 0;			
Matches 1848;		Conservative 0;	Mismatches 19;	Indels 0;	Gaps 0;	
Qy	38	CCCCTTTGACCTGGTGTATTGAGCTGGAGAAGAGACTTGAACCTCTCAACCTACGCATTA	97			
Db	156	CCCCTTTGACCTGGTGTATTGAGCTGGAGAAGAGACTTGAACCTCTCAACCTACGCATTA	215			
Qy	98	CAAGTGGGTTGGCTGGCCAAATTTGGCCACTCCAGCAGCGAGATGCTGATGATCAACAAC	157			
Db	216	CAAGTGGGTTGGCTGGCCAAATTTGGCCACTCCAGCAGCGAGATGCTGATGATCAACAAC	275			
Qy	158	TACGAATACGATCTTAGCGTATGTGATACATCAAAATGGAAATTCGGGGCTAGAGTATCTG	217			
Db	276	TACGAATACGATCTTAGCGTATGTGATACATCAAAATGGAAATTCGGGGCTAGAGTATCTG	335			
Qy	218	GTGAACCGTGATAAACGACCTGTGAATGGACTCTTTTTCCTTGCATAAATGTTTTCAGC	277			
Db	336	GTGAACCGTGATAAACGACCTGTGAATGGACTCTTTTTCCTTGCATAAATGTTTTCAGC	395			
Qy	278	GGATGTTGAGTTTGGCAACCTTCGTGGCCGCAATTTCAACAGTTGACGCTGCAAAAGCG	337			
Db	396	GGATGTTGAGTTTGGCAACCTTCGTGGCCGCAATTTCAACAGTTGACGCTGCAAAAGCG	455			
Qy	338	CACCTCGCCCATCGCCACTAGCCCGGATTTGATCTCACTGACATAGTCAAGTGCCCGGTG	397			
Db	456	CACCTCGCCCATCGCCACTAGCCCGGATTTGATCTCACTGACATAGTCAAGTGCCCGGTG	515			
Qy	398	TGATGAATTTGGCTGCGAGAAATGGCGAATTTTTCCTTTCCTTTCAGTACGTCGCAATAGTG	457			
Db	516	TGATGAATTTGGCTGCGAGAAATGGCGAATTTTTCCTTTCCTTTCAGTACGTCGCAATAGTG	575			
Qy	458	ACACCAAGTACAGTTTGGAGCACTGCTGCGTACGTTTGTACTACACGACAGTGG	517			
Db	576	ATACCAAGTACAGTTTGGAGCACTGCTGCGTACGTTTGTACTACACGACAGTGG	635			
Qy	518	ATATCACGTTGAATACGATCAACATCTTCAACCAATCGGTGTGGAGGAAGATGCGG	577			
Db	636	ATATCACGTTGAATACGATCAACATCTTCAACCAATCGGTGTGGAGGAAGATGCGG	695			
Qy	578	TCAACGTTGTTTCAATGTTGTAGGCAAGTTGGACACCAACTTCTCAAACTGTCTGAGGTTG	637			
Db	696	TCAACGTTGTTTCAATGTTGTAGGCAAGTTGGACACCAACTTCTCAAACTGTCTGAGGTTG	755			
Qy	638	ACGTTTGTATCCGTTTCAATGCTGAGCTGTGGAGACCCCGCTGAGTTGCCAGAAATCC	697			
Db	756	ACGTTTGTATCCGTTTCAATGCTGAGCTGTGGAGACCCCGCTGAGTTGCCAGAAATCC	815			
Qy	698	TGGACGAGTTGGAGCAATCCCTCGCTTATGCTTTTCCCTGTTGCGTTGCTTGGCTGGG	757			
Db	816	TGGACGAGTTGGAGCAATCCCTCGCTTATGCTTTTCCCTGTTGCGTTGCTTGGCTGGG	875			
Qy	758	CAATGATGGGTGGTGTGTTGCTGTGCTGTGTTGGGTGGTGGATGGCAGGTTTCCCTAATTG	817			
Db	876	CAATGATGGGTGGTGTGTTGCTGTGCTGTGTTGGGTGGTGGATGGCAGGTTTCCCTAATTG	935			
Qy	818	CTTTTATACCGGTTTCAAGATCATTCGACGAGCTCATTTTGGGAAAGAGGTTTGC	877			
Db	936	CTTTTATACCGGTTTCAAGATCATTCGACGAGCTCATTTTGGGAAAGAGGTTTGC	995			
Qy	878	CTACTTTCTTCCAAATGTTGTTGGTGTATTATGACAGCTGCTGCGATCGATTGCTT	937			
Db	996	CTACTTTCTTCCAAATGTTGTTGGTGTATTATGACAGCTGCTGCGATCGATTGCTT	1055			
Qy	938	ATTCTTTGGCGTTGCAATTTTGGCTTGGATCAACCCAGCAGATCATCGCATCTGGAA	997			
Db	1056	ATTCTTTGGCGTTGCAATTTTGGCTTGGATCAACCCAGCAGATCATCGCATCTGGAA	1115			
Qy	998	TTGTTGTGCTGTGGCAGGTTTGAACATCTGTGCAATCTCTGCAAGGACGGATCACGGGCG	1057			
Db	1116	TTGTTGTGCTGTGGCAGGTTTGAACATCTGTGCAATCTCTGCAAGGACGGATCACGGGCG	1175			

Qy	1058	CTCGGTGACAGCAAGTGACGATTTTTCGAAAACATCTCTGTTTACCGGCGGCAATTGTTG	1117
Db	1176	CTCGGTGACAGCAAGTGACGATTTTTCGAAAACATCTCTGTTTACCGGCGGCAATTGTTG	1235
Qy	1118	CTGGCGTGGGTTTGGGCAATTCAGCTTTCTGAAATCTTGGCATGTGCTGCTGCCATGG	1177
Db	1236	CTGGCGTGGGTTTGGGCAATTCAGCTTTCTGAAATCTTGGCATGTGCTGCTGCCATGG	1295
Qy	1178	AGTCGGCTGACGACCACTAAATTTATTTGCTACATTTCCGCCGATTTATCGCTGGCGTCA	1237
Db	1296	AGTCGGCTGACGACCACTAAATTTATTTGCTACATTTCCGCCGATTTATCGCTGGCGTCA	1355
Qy	1238	CCGACGCGGCTTTCGACAGTGGGTTGTTACGCGGAGTGGTCTCTCGGTGATTTATTTCGGGGC	1297
Db	1356	CCGACGCGGCTTTCGACAGTGGGTTGTTACGCGGAGTGGTCTCTCGGTGATTTATTTCGGGGC	1415
Qy	1298	TTACTGGCTGTAGTGGGTTCTGCGTTTATTAACCTCTTCTGTTGTTTATTATTAGGCCCGCTCT	1357
Db	1416	TTACTGGCTGTAGTGGGTTCTGCGTTTATTAACCTCTTCTGTTGTTTATTATTAGGCCCGCTCT	1475
Qy	1358	CTGCGCTGCAATTTGCTGCAACAGCAGTGGTTCACCTGCTGTTGCTGTTGCTGCTGCTGAT	1417
Db	1476	CTGCGCTGCAATTTGCTGCAACAGCAGTGGTTCACCTGCTGTTGCTGTTGCTGCTGCTGAT	1535
Qy	1418	TCCTGATTCCACCGTTGATTGTTGGCGATTTCGCGCATCACACCAATGCTTCCAGGTCTAG	1477
Db	1536	TCCTGATTCCACCGTTGATTGTTGGCGATTTCGCGCATCACACCAATGCTTCCAGGTCTAG	1595
Qy	1478	CAATTTACCGCGGAATGTACGCCACCTCTGAATGATCAAAACATCATCGGTTTCAACACA	1537
Db	1596	CAATTTACCGCGGAATGTACGCCACCTCTGAATGATCAAAACATCATCGGTTTCAACACA	1655
Qy	1538	TTGCGGTTGCTTTAGCCACCTTTCATCATCTGCGCTGCGGTGTTTGGGTGAGTGA	1597
Db	1656	TTGCGGTTGCTTTAGCCACCTTTCATCATCTGCGCTGCGGTGTTTGGGTGAGTGA	1715
Qy	1598	TTGCGCGCAGGCTACGTCGTCACCGCTTCAACCCATACCGTGCATTTTACCAAGCGA	1657
Db	1716	TTGCGCGCAGGCTACGTCGTCACCGCTTCAACCCATACCGTGCATTTTACCAAGCGA	1775
Qy	1658	ATGAGTTTCTCTTCCAGGAGGAAGCTGAGCAGATATAGCGCGGCGCAGAGAAACGTCAA	1717
Db	1776	ATGAGTTTCTCTTCCAGGAGGAAGCTGAGCAGATATAGCGCGGCGCAGAGAAACGTCAA	1835
Qy	1718	AGACTAATCAGAGATTGCGTAAATAAAGGTAAATAACCACTGCTTAGGCGCTTTTCGCT	1777
Db	1836	AGACTAATCAGAGATTGCGTAAATAAAGGTAAATAACCACTGCTTAGGCGCTTTTCGCT	1895
Qy	1778	TAAATAGCGTAGAATATCGGGTGCATCGCTTTTAAACACATCAGGAGGATCCTTCCCGGCC	1837
Db	1896	TAAATAGCGTAGAATATCGGGTGCATCGCTTTTAAACACATCAGGAGGATCCTTCCCGGCC	1955
Qy	1838	AAATACCGGACACTCGTCCACCCCAAGATTCCTTCACTGCTTGAAGAGGAACCGCA	1897
Db	1956	AAATACCGGACACTCGTCCACCCCAAGATTCCTTCACTGCTTGAAGAGGAACCGCA	2015
Qy	1898	GCCGGGG 1904	
Db	2016	GCCGGTG 2022	

RESULT 12

US-09-951-535-1

- ; Sequence 1, Application US/09951535
- ; Publication No. US20030049802A1
- ; GENERAL INFORMATION:
- ; APPLICANT: ZIEGLER, PETRA
- ; APPLICANT: EGSELING, LOTHAR
- ; APPLICANT: SHM, HERMANN
- ; APPLICANT: THIERBACH, GEORG
- ; TITLE OF INVENTION: PROCESS FOR THE ENZYMATIC PRODUCTION OF L-THREONINE



; TITLE OF INVENTION: USING CORVNEFORM BACTERIA									
; FILE REFERENCE: 21123/282415/MAS									
; CURRENT APPLICATION NUMBER: US/09/951.535									
; CURRENT FILING DATE: 2001-09-14									
; PRIOR APPLICATION NUMBER: 09/431.099									
; PRIOR FILING DATE: 1999-11-01									
; PRIOR APPLICATION NUMBER: DE 199 41 478.5									
; PRIOR FILING DATE: 1999-09-01									
; NUMBER OF SEQ ID NOS: 10									
; SOFTWARE: PatentIn Ver. 2.1									
; SEQ ID NO 1									
; LENGTH: 2817									
; TYPE: DNA									
; ORGANISM: Corynebacterium glutamicum									
; FEATURE:									
; NAME/KEY: CDS									
; LOCATION: (398)..(1864)									
; OTHER INFORMATION: thrE-Gen									
US-09-951-535-1									
Query Match 96.2%; Score 1836.6; DB 10; Length 2817;									
Best Local Similarity 99.0%; Pred. No. 0;									
Matches 1848; Conservative 0; Mismatches 19; Indels 0; Gaps 0;									
Qy	38	CCCCCTTTGACCTGGTGTATTGAGCTGGAGAGAGACTTGAACCTCTCAACTACGCAATTA	97						
Db	156	CCCCCTTTGACCTGGTGTATTGAGCTGGAGAGAGACTTGAACCTCTCAACTACGCAATTA	215						
Qy	98	CAAGTGGCGTTGCGCTGCCAATTTGGCCCACTCCAGCACCGCAGATGCTGATGATCAACAAC	157						
Db	216	CAAGTGGCGTTGCGCTGCCAATTTGGCCCACTCCAGCACCGCAGATGCTGATGATCAACAAC	275						
Qy	158	TACGAATACGATCTTAGCGTATGTGTACATCAATGGAATTCGGGGCTAGAGTATCTG	217						
Db	276	TACGAATACGATCTTAGCGTATGTGTACATCAATGGAATTCGGGGCTAGAGTATCTG	335						
Qy	218	GTGAACCGTGATAAACGACCTGTGATGGACTCTTTTCTTCGCAAAATGTTTCCAGC	277						
Db	336	GTGAACCGTGATAAACGACCTGTGATGGACTCTTTTCTTCGCAAAATGTTTCCAGC	395						
Qy	278	GGATGTGAGTTTGGCGACCTCTCGTGGCCGCAATTTCAAAGTTGAGCTGCAAAAGCCG	337						
Db	396	GGATGTGAGTTTGGCGACCTCTCGTGGCCGCAATTTCAAAGTTGAGCTGCAAAAGCCG	455						
Qy	338	CACCTCCGCCATCGCCATAGCCCGATTGATCTCACTGACCATAGTCAAGTGGCCCGTG	397						
Db	456	CACCTCCGCCATCGCCATAGCCCGATTGATCTCACTGACCATAGTCAAGTGGCCCGTG	515						
Qy	398	TGATGAATTTGGCTGCGAGAAATGGCGATATTTTGTCTTTCTTCAGGTACGTCAAAATAGTG	457						
Db	516	TGATGAATTTGGCTGCGAGAAATGGCGATATTTTGTCTTTCTTCAGGTACGTCAAAATAGTG	575						
Qy	458	ACACCAAGGTACAGTTTCGACGAGTGAACCTCTGGGTAGCGTTTGTACTACACGACACGTGG	517						
Db	576	ATACCAAGGTGCAAGTTTCGACGCGTGACCTCTGGCGTATGGCCCTGTACTATACGCATGTGG	635						
Qy	518	ATATCACCTTGAATACGATCAACATCTTCAACCAATCGGTGTGGAGGAGGAGATGCGCG	577						
Db	636	ATATCACCTTGAATACGATCAACATCTTCAACCAATCGGTGTGGAGGAGGAGATGCGCG	695						
Qy	578	TCAACGTTTTCATGTTTATGAGCAAGTTGGACACCAACTTCTCCAAACTGTCTGAGGTTG	637						
Db	696	TCAACGTTTTCATGTTTATGAGCAAGTTGGACACCAACTTCTCCAAACTGTCTGAGGTTG	755						
Qy	638	ACCGTTTCGATCCGTTCCATTCAGGCTGGTGGACCCCGCCTGAGTTGCCGAGAAATCC	697						
Db	756	ACCGTTTTCGATCCGTTCCATTCAGGCTGGTGGACCCCGCCTGAGTTGCCGAGAAATCC	815						
Qy	698	TGGACGAGTTGGAGCAATCCCTGCGCTTATGTTTCCCTGTTCGCTGCTTGGCTGGG	757						
Db	816	TGGACGAGTTGGAGCAATCCCTGCGCTTATGTTTCCCTGTTCGCTGCTTGGCTGGG	875						
Qy	758	CAATGATGGGTGGTCTGTTGCTGTGTTGGGTGGTGGATGGCAGGTTTCCCTAATTG	817						
Db	876	CAATGATGGGTGGTCTGTTGCTGTGCTGGTGGTGGATGGCAGGTTTCCCTAATTG	935						
Qy	818	CTTTTATTTACCGCGTTTACGATCATTTGCCACGACGTCAATTTTGGGAAAGAGGTTTGC	877						
Db	936	CTTTTATTTACCGCGTTTACGATCATTTGCCACGACGTCAATTTTGGGAAAGAGGTTTGC	995						
Qy	878	CTACTTTCTTCCAAAATGTTGTTGGTGTATTTATTTGCCACGCTGCTGCATCGATTGCTT	937						
Db	996	CTACTTTCTTCCAAAATGTTGTTGGTGTATTTATTTGCCACGCTGCTGCATCGATTGCTT	1055						
Qy	938	ATTCTTTTGGCGTTGCAATTTGGTCTTTGAGATCAAAACCGAGCCAGATCATCGCATCTGGAA	997						
Db	1056	ATTCTTTTGGCGTTGCAATTTGGTCTTTGAGATCAAAACCGAGCCAGATCATCGCATCTGGAA	1115						
Qy	998	TTGTTGTGCTGTGGCAGGTTTGAACCTCTGCTGCAATCTCTGAGGAGCGCATCACGGCG	1057						
Db	1116	TTGTTGTGCTGTGGCAGGTTTGAACCTCTGCTGCAATCTCTGAGGAGCGCATCACGGCG	1175						
Qy	1058	CTCCGGTGACAGCAAGTGACGATTTTTCGAAACACTCTCTGTTTACCGCGCGCATTTGTTG	1117						
Db	1176	CTCCGGTGACAGCAAGTGACGATTTTTCGAAACACTCTCTGTTTACCGCGCGCATTTGTTG	1235						
Qy	1118	CTGGCGTGGGTTTGGGCATTTCAAGCTTTCTGAAATCTTGCATGTCATGTTGCCCTGCCATGG	1177						
Db	1236	CTGGCGTGGGTTTGGGCATTTCAAGCTTTCTGAAATCTTGCATGTCATGTTGCCCTGCCATGG	1295						
Qy	1178	AGTCCGCTGCACACCACTAATTTCTGTCTACATTTGCCCGCATTTATCGCTGGTGGCGTCA	1237						
Db	1296	AGTCCGCTGCACACCACTAATTTCTGTCTACATTTGCCCGCATTTATCGCTGGTGGCGTCA	1355						
Qy	1238	CGGCACGCGCTTTCGAGTGGGTTGTTACGCGAGTGGTCTCTCGTGTATTTATTTGGGGGC	1297						
Db	1356	CGGCACGCGCTTTCGAGTGGGTTGTTACGCGAGTGGTCTCTCGTGTATTTATTTGGGGGC	1415						
Qy	1298	TTACTCGCTGATGGTTCCTGCGTTTATTAACCTCTTCTGTTCTTTATTTAGGCCCGCTCT	1357						
Db	1416	TTACTCGCTGATGGTTCCTGCGTTTATTAACCTCTTCTGTTCTTTATTTAGGCCCGCTCT	1475						
Qy	1358	CTGCCCTCGCATTTGCTGCAACAGCAGTTGGTTCCTCTGTTGTTTCTGTTGCTTGGCTCGAT	1417						
Db	1476	CTGCCCTCGCATTTGCTGCAACAGCAGTTGGTTCCTCTGTTGTTTCTGTTGCTTGGCTCGAT	1535						
Qy	1418	TCTTGATTCACCGTTGATGTGGCGATTTGCCGGGATCAACCAATGCTTCAGGTCTAG	1477						
Db	1536	TCTTGATTCACCGTTGATGTGGCGATTTGCCGGGATCAACCAATGCTTCAGGTCTAG	1595						
Qy	1478	CAATTTACCGCGAATGTACGCCACCTCGAATGATCAAACTCACTATGGGTTTTCACCAACA	1537						
Db	1596	CAATTTACCGCGAATGTACGCCACCTCGAATGATCAAACTCACTATGGGTTTTCACCAACA	1655						
Qy	1538	TTGCGGTTGCTTTAGCCACTGCTTCACTATGCTGGCCCTGGCGTGGTTTGGGTGAGTGGA	1597						
Db	1656	TTGCGGTTGCTTTAGCCACTGCTTCACTATGCTGGCCCTGGCGTGGTTTGGGTGAGTGGA	1715						
Qy	1598	TTGCCCGCAGGCTACGTGCTCCACACGCTTCAACCCATACCGTGCATTTTACCAAGCGA	1657						
Db	1716	TTGCCCGCAGGCTACGTGCTCCACACGCTTCAACCCATACCGTGCATTTTACCAAGCGA	1775						
Qy	1658	ATCAGTTCTCTCTTCCAGGAGGAGCTGAGCAGAAATCAGCGCCGCGCAGAGAAAACGTCCTAA	1717						
Db	1776	ATCAGTTCTCTCTTCCAGGAGGAGCTGAGCAGAAATCAGCGCCGCGCAGAGAAAACGTCCTAA	1835						
Qy	1718	AGACTAATCAGAGATTCGGTAAATAAAGGTAAATAAATCAACCTGCTTAGGGCTCTTCGCT	1777						
Db	1836	AGACTAATCAGAGATTCGGTAAATAAAGGTAAATAAATCAACCTGCTTAGGGCTCTTCGCT	1895						
Qy	1778	TAAATACGCTAGAGATTCGGGTCGATCGCTTTTAAACACTCAGGAGGATCTCTTCCGGGCC	1837						
Db	1896	TAAATACGCTAGAGATTCGGGTCGATCGCTTTTAAACACTCAGGAGGATCTCTTCCGGGCC	1955						
Qy	1838	AAAAACACGACACTCGTCCACCCAGAAATCCCTTCACTGCTTGAAGAGGAAACGCGCA	1897						



Db 1776 ATGAGTTCTCCTCCAGGAGGAGCTGAGCAGAACTCAGCGCCGCGAGAGAAAAGCTCCAA 1835  
Qy 1718 AGACTAATCAGAGATTCGGTAATAAAAGGTAATAAATCAACCTGCTTAGGGCTCTTTTCGCT 1777  
Db 1836 AGACTAATCAAGATTCGGTAATAAAAGGTAATAAATCAACCTGCTTAGGGCTCTTTTCGCT 1895  
Qy 1778 TAAATAGCGTAGAATATCGGGTCGATCGCTTTTAAACACTCAGAGGATCCTTTGCCGGCC 1837  
Db 1896 TAAATAGCGTAGAATATCGGGTCGATCGCTTTTAAACACTCAGAGGATCCTTTGCCGGCC 1955  
Qy 1838 AATAATCAGGACACTCGCTCCACCCAGAAATCCCTTCAACGCTGTGTAAGAGGAAACCGCA 1897  
Db 1956 AATAATCAGGACACTCGCTCCACCCAGAAATCCCTTCAACGCTGTGTAAGAGGAAACCGCA 2015  
Qy 1898 GCCGGG 1904  
Db 2016 GCCGGT 2022

RESULT 14  
US-10-627-476-557  
; Sequence 557, Application US/10627476  
; Publication No. US2004030116A1  
; GENERAL INFORMATION:  
; APPLICANT: Pompejus, Mark  
; APPLICANT: Kroger, Burkhard  
; APPLICANT: Schoder, Hartwig  
; APPLICANT: Zelder, Oskar  
; APPLICANT: Haberhauer, Gregor  
; TITLE OF INVENTION: CORYNEBACTERIUM GLUTAMICUM GENES ENCODING PROTEINS  
; TITLE OF INVENTION: INVOLVED IN MEMBRANE SYNTHESIS AND MEMBRANE  
; TITLE OF INVENTION: TRANSPORT  
; FILE REFERENCE: BGI-125CPCN  
; CURRENT APPLICATION NUMBER: US/10/627,476  
; CURRENT FILING DATE: 2003-07-25  
; PRIOR APPLICATION NUMBER: 09/602,787  
; PRIOR FILING DATE: 2000-06-23  
; PRIOR APPLICATION NUMBER: USN 60/141031  
; PRIOR FILING DATE: 1999-06-25  
; PRIOR APPLICATION NUMBER: DE 19931454.3  
; PRIOR FILING DATE: 1999-07-08  
; PRIOR APPLICATION NUMBER: DE 19931478.0  
; PRIOR FILING DATE: 1999-07-08  
; PRIOR APPLICATION NUMBER: DE 19931563.9  
; PRIOR FILING DATE: 1999-07-08  
; PRIOR APPLICATION NUMBER: DE 19932122.1  
; PRIOR FILING DATE: 1999-07-09  
; PRIOR APPLICATION NUMBER: DE 19932124.8  
; PRIOR FILING DATE: 1999-07-09  
; PRIOR APPLICATION NUMBER: DE 19932125.6  
; PRIOR FILING DATE: 1999-07-09  
; PRIOR APPLICATION NUMBER: DE 19932128.0  
; PRIOR FILING DATE: 1999-07-09  
; PRIOR APPLICATION NUMBER: DE 19932180.9  
; PRIOR FILING DATE: 1999-07-09  
; Remaining Prior Application data removed - See File Wrapper or PALM.  
; NUMBER OF SEQ ID NOS: 678  
; SEQ ID NO 557  
; LENGTH: 1590  
; TYPE: DNA  
; ORGANISM: Corynebacterium glutamicum  
; FEATURE:  
; NAME/KEY: CDS  
; LOCATION: (101)..(1567)  
; OTHER INFORMATION: RXN00349  
US-10-627-476-557

Query Match 83.3%; Score 1590; DB 16; Length 1590;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 1590; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
US-10-627-476-557

Db 1 TGTGTACATCAATGGAATTCGGGCTAGAGTATCTGTGTGAACCGTGCATAAACGACCT 60  
Qy 240 GTGATTTGACTCTTTTCTTCCAGGAGTGTGAGTTTTCGACCCCT 299  
Db 61 GTGATTTGACTCTTTTCTTCCAGGAGTGTGAGTTTTCGACCCCT 120  
Qy 300 TCGTGGCCGCAATTCACACAGTTGAGCTGCACAAAGCCGACCTCCGCCATCCCACTAGC 359  
Db 121 TGTGTGCCGCAATTCACACAGTTGAGCTGCACAAAGCCGACCTCCGCCATCCCACTAGC 180  
Qy 360 CCCGATTGATCTCACTGACCATAGTCAAGTGCCTGGGTGTGATGAATTTGGCTGCGGAAAT 419  
Db 181 CCCGATTGATCTCACTGACCATAGTCAAGTGCCTGGGTGTGATGAATTTGGCTGCGGAAAT 240  
Qy 420 TGGCGATATTTTGTCTTTCTTCCAGGTACGTCAAATAGTGAACCAAGGTACAAGTTCCGAGC 479  
Db 241 TGGCGATATTTTGTCTTTCTTCCAGGTACGTCAAATAGTGAACCAAGGTACAAGTTCCGAGC 300  
Qy 480 AGTGACCTCTCGGTACGGTTTGTACTACACGACCGTGGATATCAGCTTGAATACGATCAC 539  
Db 301 AGTGACCTCTCGGTACGGTTTGTACTACACGACCGTGGATATCAGCTTGAATACGATCAC 360  
Qy 540 CATCTTACCAACATCGGTGTGAGAGGAGATCGCGTCAACGTTTCATGTTGTGTAGG 599  
Db 361 CATCTTACCAACATCGGTGTGAGAGGAGATCGCGTCAACGTTTCATGTTGTGTAGG 420  
Qy 600 CAAGTTGGACACCACTCTCCAACTGTCTCAGGTTGACCGTTTGATCCGTTCCATTCA 659  
Db 421 CAAGTTGGACACCACTCTCCAACTGTCTCAGGTTGACCGTTTGATCCGTTTCATTCA 480  
Qy 660 GGTGTGTGCGACCCCGCTGAGGTTGCCGAGAAAATCTTGGACGAGTTGGAGCAATCCCC 719  
Db 481 GGTGTGTGCGACCCCGCTGAGGTTGCCGAGAAAATCTTGGACGAGTTGGAGCAATCCCC 540  
Qy 720 TGGCTCTTATGTTTCCCTGTTGCGTGTGCTGGGCAATGATGGGTGCTGTGTCG 779  
Db 541 TGGCTCTTATGTTTCCCTGTTGCGTGTGCTGGGCAATGATGGGTGCTGTGTCG 600  
Qy 780 TGTGCTGTTGGGTGGTGGATGCGAGGTTTCCCTAATTTGCTTTTATACCGCGTTTACAGAT 839  
Db 601 TGTGCTGTTGGGTGGTGGATGCGAGGTTTCCCTAATTTGCTTTTATACCGCGTTTACAGAT 660  
Qy 840 CATTGCCACGAGCTCAATTTTGGGAAAGGGTTTGCCTACTTTCTTCCAAAATGTTGT 899  
Db 661 CATTGCCACGAGCTCAATTTTGGGAAAGGGTTTGCCTACTTTCTTCCAAAATGTTGT 720  
Qy 900 TGTGCTGTTTATTTGCCACGCTGCTGATCGATGCTTATTTCTTGGCGGTGCAATTTGG 959  
Db 721 TGTGCTGTTTATTTGCCACGCTGCTGATCGATGCTTATTTCTTGGCGGTGCAATTTGG 780  
Qy 960 TCTTGAGATCAAAACCGAGCCAGATCATCGCATCTGGAATTTGTTGCTGTGTGGCAGGTT 1019  
Db 781 TCTTGAGATCAAAACCGAGCCAGATCATCGCATCTGGAATTTGTTGCTGTGTGGCAGGTT 840  
Qy 1020 GACACTGTGCAATCTCTCAGGACGGGATCAGCGGCGTCCGGTGCACAGCAAGTCACG 1079  
Db 841 GACACTGTGCAATCTCTCAGGACGGGATCAGCGGCGTCCGGTGCACAGCAAGTCACG 900  
Qy 1080 ATTTTTCGAAACACTCTCTGTTTACCGCGGCAATTTGTTGCTGGCGTGGGTTTGGGCAATTC 1139  
Db 901 ATTTTTCGAAACACTCTCTGTTTACCGCGGCAATTTGTTGCTGGCGTGGGTTTGGGCAATTC 960  
Qy 1140 GCTTTCTGAAATCTTGCATGTGCTATGTTGCTGCAATGGAGTGCCTGTCAGACACTAATTA 1199  
Db 961 GCTTTCTGAAATCTTGCATGTGCTATGTTGCTGCAATGGAGTGCCTGTCAGACACTAATTA 1020  
Qy 1200 TTGCTCTACATTCGCCCGCAATTCGCTGGTGGCGTCACGCGAGCGGCTTCGACGTGG 1259  
Db 1021 TTGCTCTACATTCGCCCGCAATTCGCTGGTGGCGTCACGCGAGCGGCTTCGACGTGG 1080  
Qy 1260 TTGTTACGGGGAGTGTCTCGGTGATTTATTTGGGGGCTTACTGCGCTGATGGGTTCTGC 1319  
Db 1081 TTGTTACGGGGAGTGTCTCGGTGATTTATTTGGGGGCTTACTGCGCTGATGGGTTCTGC 1140



Db 1261 GGCgATTGCCGGcATcACACcAATGCTTCCAGGTCTAGCAATTTACCGCGAATGTACGC 1320  
Qy 1500 CACCCTGAATGATCAAAACACTCATGgTTTCAcCAACATTTGCGgTTGCTTTAGCCACTGC 1559  
Db 1321 CACCCTGAATGATCAAAACACTCATGgTTTCAcCAACATTTGCGgTTGCTTTAGCCACTGC 1380  
Qy 1560 TTcATcACTTGCcCGCTGCcCGTGGTTTGGGTGAGTGGATTTGCCGcAGGCTAGCTGCTCC 1619  
Db 1381 TTcATcACTTGCcCGCTGCcCGTGGTTTGGGTGAGTGGATTTGCCGcAGGCTAGCTGCTCC 1440  
Qy 1620 ACCACGCTTCAACCCcATAcCGTGTcATTTAcCAAGCGcAATGAGTTCTCTTCCAGGAGGA 1679  
Db 1441 ACCACGCTTCAACCCcATAcCGTGTcATTTAcCAAGCGcAATGAGTTCTCTTCCAGGAGGA 1500  
Qy 1680 AGCTGAGcAGAAATCAGCGCGCGcAGAGAAACGTCCAAAGACTAAATCAGAGATTCGgTAA 1739  
Db 1501 AGCTGAGcAGAAATCAGCGCGCGcAGAGAAACGTCCAAAGACTAAATCAGAGATTCGgTAA 1560  
Qy 1740 TAAAGGTAAAAATCAACCTGCTTAGGCGT 1769  
Db 1561 TAAAGGTAAAAATCAACCTGCTTAGGCGT 1590

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